UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

CERTIFIED MAIL NO. Z 331 743 075
RETURN RECEIPT REQUESTED

June 1, 2000

In reply, refer to WST-3-1

TRANSMITTAL LETTER

Mr. Albert Toy
Crystal Technology, Inc.
1040 East Meadow Circle
Palo Alto, CA 94303

Dear Mr. Toy,

On January 13, 2000, a Compliance Evaluation hazardous waste investigation was conducted by representatives of the United States Environmental Protection Agency (U.S. EPA) at Crystal Technology, Inc. located in Palo Alto, CA, U.S. EPA Identification Number CAD 980 882 369. During the course of this investigation, information was gathered in accordance with Section 3007 of the Resource Conservation and Recovery Act ("RCRA"), as amended [42 U.S.C. 6927]. A copy of the investigation report is enclosed for your information and response. The report describes conditions at the facility at the time of the investigation, and identifies one area of noncompliance with RCRA regulations and potential violations of the California authorized program under RCRA Subtitle C. Any omissions in the report shall not be construed as a determination of compliance with all applicable regulations.

By copy of this letter, EPA is providing the State of California with notice of the referenced violations of Subtitle C of RCRA. The State of California may notify EPA of its intent to assume or decline responsibility to take such action to resolve the referenced violation. U.S. EPA routinely provides copies of investigation reports to State agencies, and upon request, to the public. Such releases are handled according to the Freedom of Information Act regulations (40 CFR Part 2). If you believe this report contains privileged or confidential information, you may make a claim within fifteen (15) calender days from the date of this letter. U.S. EPA will construe your failure to furnish a timely claim as a waiver of the confidentiality claim.

If you have questions related to technical aspects of the investigation report or this letter, please contact Cameron McDonald at (415) 744-2124.

Sincerely,

Frances Schultz

Frances Schultz, Chief
RCRA Enforcement Section

Enclosure
cc: Charles McLaughlin, CAL EPA, DTSC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

RCRA COMPLIANCE EVALUATION INSPECTION REPORT
WASTE MANAGEMENT DIVISION
RCRA ENFORCEMENT SECTION

Purpose:	RCRA Compliance Evaluation Inspection
Facility:	Crystal Technology, Inc.
Location:	1040 East Meadow Circle Palo Alto, CA 94303
Mailing Address:	same as above
EPA ID Number:	CAD 980882369
Date of Inspection:	January 12, 2000
EPA Representatives:	Cameron McDonald Environmental Scientist (415) 744-2124 Roberto Rodriguez Environmental Protection Specialist
Facility Representatives:	Albert Toy Environmental Health and Safety Manager
Report Prepared by:	Cameron McDonald
Report Date:	March 24, 2000

INTRODUCTION

On, January 13, 2000, Cameron McDonald and Roberto Rodriguez, representing the United States Environmental Protection Agency (EPA) conducted an unannounced Compliance Evaluation Inspection (CEI) at the Crystal Technology, Inc. facility ("Crystal Technology" or "the facility") (EPA ID# CAD 980 882 369) located at 1040 East Meadow Circle, Palo Alto, CA.

The purpose of the inspection was to determine the facility's compliance with applicable state and federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268, and 279, the California Code Regulations (CCR), Title 22, Division 4.5 and the California Health and Safety Code, Division 20.

FACILITY BACKGROUND

Crystal Technology began operation in 1965 as a manufacturer of single oxide crystals and the selected optical components based on these crystals. The single oxide crystals are used in laser optics and wireless communications products.

The facility consists of three buildings: 1035 East Meadow Circle, 1040 East Meadow Circle, and 1051 East Meadow Circle. The 1035 and 1051 buildings operate 24 hours a day, seven days a week. The 1040 building, which consists mainly of the administrative offices, operates for ten hours a day, Monday through Friday (Attachment 1).

The personnel consists of approximately 200 employees. However, Crystal Technology hires temporary labor at times of high production, so the actual number of employees can fluctuate.

REGULATORY HISTORY

Crystal Technology submitted a Notification of Hazardous Waste Activity in April 1984 stating that they generate EPA Hazardous Waste Codes U002 (2-propanone), U134 (hydrogen fluoride), U154 (methanol), U226 (1,1,1-trichloroethane), and U228 (trichloroethylene) (Attachment 2).

According to the 1995 Biennial Report, Crystal Technology shipped 28 tons of the following EPA hazardous waste codes: D001, D002, D011, D021, D040, F002, F003, and F005. According to the 1997 Biennial Report, Crystal Technology shipped 30 tons of the following EPA hazardous waste codes: D001, D002, D013, D021, F001, F003, and F005 (Attachment 3).

The facility was inspected by the California Department of Health Services' Toxic Substances Control Division (CADHS TSCD) in March 1989 and by the California Environmental Protection Agency's Department of Toxic Substances Control (CAL EPA DTSC) in April 1991. Both state inspections found numerous violations, including: storage in excess of 90 days without a permit, manifests unavailable or incorrectly filled out, no Land Disposal Restriction notifications, inadequate training plan, insufficient training records, inadequate contingency plan, and inadequate labeling of containers (including containers not marked with accumulation start dates, or with the words "Hazardous Waste," or with the composition and physical state of the waste, or the particular hazardous properties of the waste, and without the name and address of the generator). As a result of these findings, DTSC initiated a formal enforcement action

against Crystal Technology.

WALK-THROUGH INSPECTION

After providing credentials, the inspectors contacted Mr. Albert Toy (Environmental Health and Safety Manager). The inspectors explained the purpose of the inspection and what would be covered. Before touring the facility, the inspectors presented a Small Business Regulatory Enforcement and Fairness Act (SBREFA) handout to the facility representative. The inspectors also informed the facility representative of his right to claim the privilege of confidential business information during the inspection or after receipt of the inspection report. Photographs were taken with the facility's acquiescence throughout the inspection.

Building 1051

The inspection began at Building 1051 where the materials to grow the crystals are chemically prepared. The base materials for the lithium niobate (LN) crystals are niobate pentoxide and lithium carbonate. These chemicals, in a powder form, are mixed together and heated or "charged" in a furnace to about 1350 degrees Centigrade. After charging, the lithium niobate forms are a columnar shape that is referred to as a "boule."

In the Crucible Preparation room the EPA inspectors observed under a sink labeled the Acid sink, three polyethylene jugs of three sizes (5-gallon, 3-gallon and 2.5-gallon). None of the jugs were labeled and all were empty. According to the facility representative, waste is deposited in these jugs (Attachment 4, Photo 1).

Under an adjoining sink used for solvent rinse the EPA inspectors observed four 2.5-gallon polyethylene jugs. One of the jugs was two-thirds full of waste solvent. This jug had a hazardous waste tag, but no accumulation start date. According to the facility representative, the jugs are emptied weekly. There were no markings on the jugs to confirm this statement (Attachment 4, Photo 2).

In another room in Building 1051 the LN boules are prepared for testing for quality assurance alignment. The alignment dictates the optical properties of that particular boule. A small amount of platinum ink is painted on the bottom of the boule and the boule is placed in a drying oven to bake the platinum ink until it sets. Crystal Technology handles the platinum waste as hazardous waste. The platinum wastes from the ink preparation process are placed in a 30-gallon red can located in this room. The can is labeled "Empty every night."

Outside of Building 1051 is one of the two outside hazardous waste storage areas. This storage area consists of two locked sheds, one for solvents and the other for acids. The hazardous waste storage area was equipped with spill response equipment contained in the acid storage shed, a shower and eyewash, and an emergency phone (Attachment 4, Photos 3 and 4).

In the solvent storage area there were three drums of solvent. All of the drums had hazardous waste labels with accumulation start dates. The acid storage area contained four drums. All of the drums had hazardous waste labels with accumulation start dates. Drums in both sheds are placed over a contained sump. According to the facility representative, the sumps are drained and cleaned, usually during the winter. Any water discovered in the sumps is tested for

contamination, and if no contamination is found, it is then released to the storm drains.

Building 1035

In Building 1035, the LN boules undergo preparation for precision sawing into wafers. The facility has several rooms in this building dedicated to sectioning the boules into wafers.

Chemical compounds used in this building include:

1. the coolant used in the sawing equipment, Challenge 400 NT,
2. Valtron SP 2500 - a low sodium cleaner, which is disposed of as a corrosive hazardous waste,
3. Syton HT50 - a colloidal silica (MSDS in Attachment 3),
4. Aluminum oxide - an abrasive, and,
5. Hydrofluoric acid

The EPA inspectors observed a three-sink cleaning area built into one wall of Building 1035. The first sink contained about three gallons of 48% hydrofluoric acid (HF) and the other two sinks contained deionized water rinses. According to the facility representative, the HF acid is poured into the sink by the maintenance crew and pumped out about once a week. Next to the three-sink cleaning area were a fully automated eyewash and shower and an emergency spill kit.

There was also another HF acid cleaning section that was placed more centrally in the building. This section is used for final polishing of the LN wafer. This area was cordoned off with "CAUTION" signs. The first sink uses 10% HF acid and is replenished once a day. The EPA inspectors observed a locker nearby which contained additional spill equipment.

Building 1040

This building is used for assembly and administrative operations. Small amounts of solvents, such as acetone and methanol, are used to clean parts. The solvents are usually applied with Q-Tips© or wipes. A red 20-gallon can sits under or near each workbench (Attachment 4, Photo 5). The cans are labeled "Empty every night." No accumulation start date was noted on any of the cans.

Outside of Building 1040, is the second hazardous waste storage area that consists of one locked shed. Drums in the shed are placed over a contained sump. The hazardous waste storage area was equipped with spill response equipment contained in the storage shed, a shower and eyewash, a fire extinguisher, and an emergency phone (Attachment 4, Photo 6).

Next to the hazardous waste storage area is an acid neutralization system. According to the facility representative, this system treats on average 1.5 gallons of 10% hydrofluoric acid and 8 gallons of 100% acetic acid a week. The system is triple-chambered and uses 30% sodium hydroxide for neutralization. The facility representative pointed out three pH meters on the instrumentation and a fourth pH meter stationed before final discharge to the sewer. The third pH meter on the instrumentation read a pH of 7 at the time of the inspection.

RECORD REVIEW

The EPA inspectors reviewed and found adequate the following documents:
- Manifests and Land Disposal Restrictions (LDRs) - from the years 1996 through 1999
- Contingency Plan
- Preparation and Prevention Plan
- Wastewater Discharge Permit
- Waste Inspection Logs
- 1997 Biennial Report. The inspectors requested a copy of the 1997 Biennial Report.
- Training Plan and Records. All chemical handlers are Emergency Response Team (ERT) members.

LIST OF ATTACHMENTS

1. Diagram of the Crystal Technology Facility
2. Notice of Hazardous Waste Activity
3. 1997 Biennial Report
4. Site Photographs
5. MSDS of Chemicals used at Crystal Technology, Inc.

POTENTIAL VIOLATIONS

Accumulation Time
22 CCR 66262.34(e)(1)(C)
[40 CFR 262.34(c)(1)]

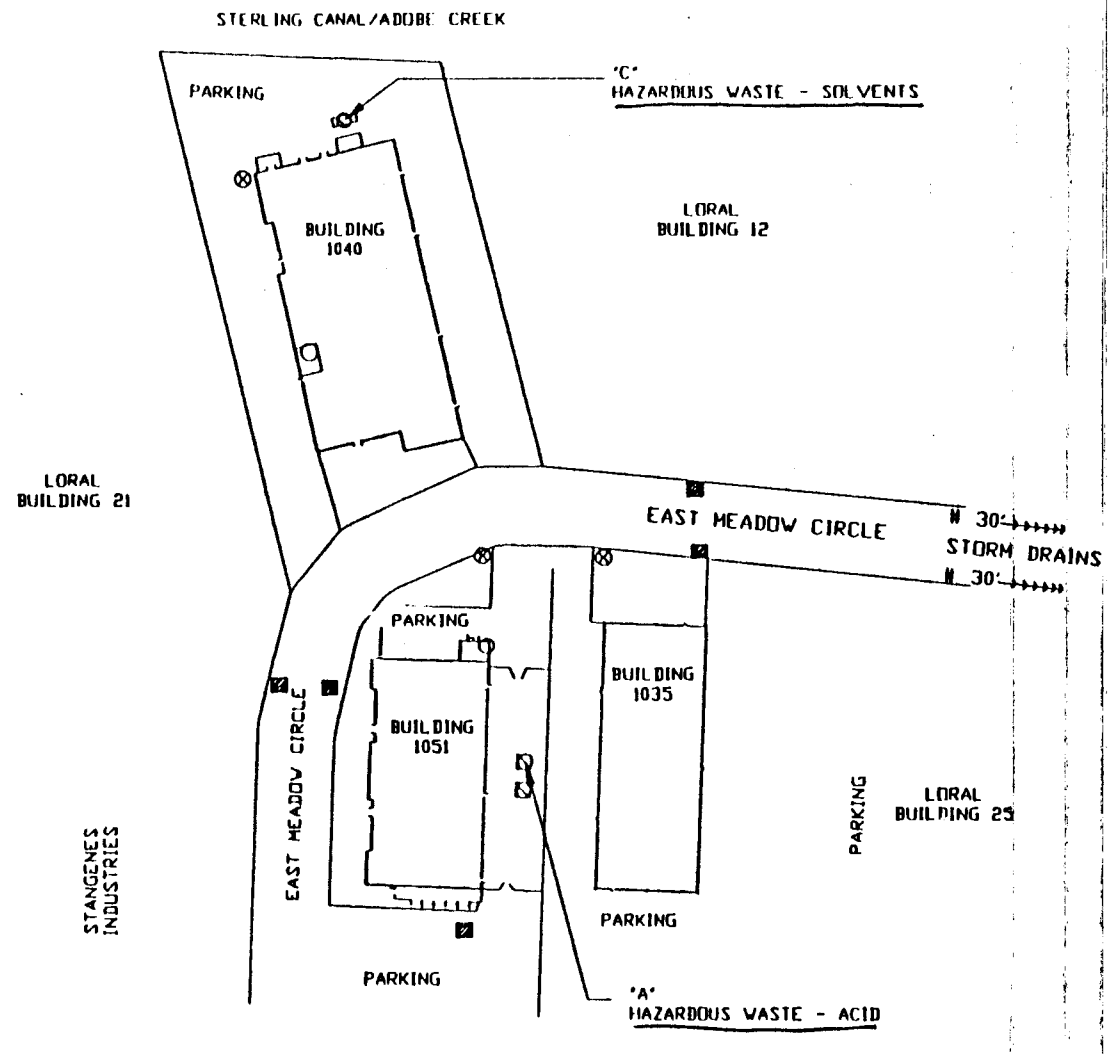
> **A generator may accumulate as much as 55 gallons of hazardous waste, one quart of acutely hazardous waste (listed in section 66261.33(e)) or one quart of extremely hazardous waste at or near any point of generation, without a permit or grant of interim status, without complying with subsections (a), (b) and (c) of this section, if all of the following requirements are met with respect to this waste: The initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste.**

In the Crucible Preparation room in Building 1051, one 2.5-gallon polyethylene jug was two-thirds full of waste solvent. This jug had a hazardous waste tag, but no accumulation start date.

ATTACHMENT 1

DIAGRAM OF THE CRYSTAL TECHNOLOGY FACILITY

Entities = 3 A-U 3 buildings



LEGEND

- CHEMICAL LOADING AREA
- STORM DRAINS
- TEST DRAIN

HAZSTG

CRYSTAL TECHNOLOGY, INC.

1040 E. MEADOW CIRCLE

PALO ALTO, CA

DR. BY: G.P.T.	REV. NO:	HAZARDOUS WASTE STORAGE AREAS
DATE: 12-01-92	DATE:	

CHEMICAL DATA MANAGEMENT SYSTEMS
11750 DUBLIN BLVD., STE. 201 DUBLIN, CA 94568 (510) 551-7300

ATTACHMENT 2

NOTICE OF HAZARDOUS WASTE ACTIVITY

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

III. LOCATION OF INSTALLATION

PLEASE PLACE LABEL IN THIS SPACE

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F CAD980882369 T/A 3 C 1	A	840417

I. NAME OF INSTALLATION

CRYSTAL TECHNOLOGY INCORPORATED

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 1035 EAST MEADOW CIRCLE

CITY OR TOWN: 4 PALO ALTO — ST.: CA — ZIP CODE: 94303

APR 19 1984

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 1040 EAST MEADOW CIRCLE

CITY OR TOWN: 6 PALO ALTO — ST.: CA — ZIP CODE: 94303

Santa Clara
085

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 7 DUMLAO, DAN PURCHASING MGR

PHONE NO. *(area code & no.)*: 415-856-7916

V. OWNERSHIP

DETACH

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 CRYSTAL TECHNOLOGY INC

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*: M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [ ] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA I.D. Number in the space provided below.

second site

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

CONTINUE ON REVERSE

I.D. – FOR OFFICIAL USE ONLY

W | | | | | | | | | | | | | | 1

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
U002	U134	U154	U226	U228	
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
Richard J. Rodda	RICHARD J. RODDA FACILITY MANAGER	3-13-84

EPA Form 8700-12 (6-80) REVERSE

ATTACHA

ATTACHA

ATTACHMENT 3

1997 BIENNIAL REPORT

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

FORM 1C

U.S. ENVIRONMENTAL PROTECTION AGENCY

1997 Hazardous Waste Report

IDENTIFICATION AND CERTIFICATION

Instructions: Please see the detailed instructions beginning on page 7 of the instructions and forms booklet before completing this form. In addition, the page number for the instructions specific to each section is provided below.

Sec. I Site name and location address. Instructions page 7.

A. EPA ID No.	B. County
CAD980882369	Santa Clara
C. Site/company name	**D. Has the site name associated with this EPA ID changed since 1995?**
CRYSTAL TECHNOLOGY, INC.	☐ 1 Yes ☒ 2 No

E. Street name and number. If not applicable, enter industrial park, building name or other physical location description.

1040 East Meadow Circle

F. City, town, village	G. State	H. Zip Code
Palo Alto	CA	94303

Sec. II Mailing address of site. Instructions page 7.

A. Is the mailing address the same as the location address?

☒ 1 Yes (SKIP TO SEC III) ☐ 2 No (GO TO BOX B)

B. Number and street name of mailing address

1040 East Meadow Circle

C. City, town, village	D. State	E. Zip Code
Palo Alto	CA	94303

Sec. III Name, title, and telephone number of the person who should be contacted if questions arise regarding this report. Instructions page 7.

A. Last Name	First Name	M.I.	B. Title	C. Telephone Number
Tov. Albert W.			EH&S Manager	650 354-0165 Ext.

Sec. IV "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under Section 3006 of the Resource Conservation and Recovery Act for submitting false information, including the possibility of fine and imprisonment for knowing violations." Instructions page 8

A. Last Name	First Name	M.I.	B. Title
Tov. Albert W.			EH&S Manager

C. Signature: Albert W Tov

D. Date of signature: 02 (MO.) 23 (DAY) 98 (YR.)

Sec. V Generator status. Instructions begin on page 8.

A. 1997 RCRA generator status

(CHECK ONE BOX BELOW)

- [X] 1 LQG
- [ ] 2 SQG
- [ ] 3 CESQG

SKIP TO SEC. VI

- [ ] 4 Non-generator (Continue to Box B)

B. Reason for not generating

(CHECK ALL THAT APPLY)

- [ ] 1 Never generated
- [ ] 2 Out of business
- [ ] 3 Only excluded or delisted waste
- [ ] 4 Only non-hazardous waste
- [ ] 5 Periodic or occasional generator
- [ ] 6 Waste minimization activity
- [ ] 7 Other (SPECIFY COMMENTS IN BOX BELOW)

Sec. VI On-site waste management status. Instructions page 10.

A. Storage subject to RCRA permitting requirements

1

B. Treatment, disposal, or recycling subject to RCRA permitting requirements

1

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Photoresist stripper used to remove photoresist from crystals; mixture of water (85-90%), sodium phosphate (5-10%) and sodium silicate (1-5%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 122

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A03	1	B110	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
165.00	5 Density 1.40 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	165.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Mixed non-halogenated solvents from crystal cleaning operations; mixture of acetone (50-75%), methanol (5-20%), isopropyl alcohol (1-10%), ethanol (0-1%) and N-butyl acetate (0-1%)

B. EPA hazardous waste codes (page 12)	C. State hazardous waste codes (page 13)
D001 D021 F003 F005 NA	CA 212

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A05	2	B203	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,645.00	5 Density 0.80 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	1,645.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM **GM**

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
mixed non-halogenated solvent/wastewater rinse from rinse of solvent containers; water (96-100%), acetone (0-1%), isopropyl alcohol (0-1%), methanol (0-1%) and dye (0-1%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F003	NA	NA	NA	NA	CA 212

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A04	1	B101	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
405.00	5 Density 1.00 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	405.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM GM

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Waste hydrofluoric acid rinse water from wafer etching; water (80-99%) and hydrofluoric acid (1-20%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
3,145.00	5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	3,145.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Mixed hydrochloric acid and nitric acid aqueos waste from boule etching; water (80-99%), hydrochloric acid (1-10%) and/or nitric acid (1-10%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
495.00	5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	495.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM **GM**

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Spent vapor degreaser fluid (HCFC) used for cleaning crystals; Dichlorofluroethane (90-99%), methanol (0-10%), oil (0-1%) and water (0-1%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F001	F003	NA	NA	NA	CA 741

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A07	1	B202	2

Sec. II

A. Quantity generated in 1997 (page 15): 110.00

B. UOM (page 15): 5
Density: 1.30
( ) 1 lbs/gal (X) 2 sg

C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
[X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	110.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Flammable solids used for wipe cleaning of crystals; debris (90-100%), acetone (0-10%), isopropyl alcohol (0-10%) and methanol (0-10%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F003	NA	NA	NA	NA	CA 352

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A19	1	B409	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,255.00	1 Density NA	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M043	1	1,255.00
Site 2	NA			
Site 3	NA			

Comments:
Cotton wipes and wood handle cotton swabs used for hand wipe cleaning of crystals.

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Hydrofluoric acid wastewater neutralization unit used for etching crystals; water (99-100%) and hydrofluoric acid (0-1%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15): 4.00

B. UOM (page 15): 5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg

C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
- [X] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
- [ ] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)
M121	4.00	NA	

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
- [ ] 1 Yes (CONTINUE TO BOX B)
- [X] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1				
Site 2				
Site 3				

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM **GM**

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Lab packs of misc. chemicals.

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)	
D001	D002	D018	NA	NA	CA 551	CA 791

D. SIC code (page 13)	E. Ongin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A99	1	B001	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,605.00	1 Density NA	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M137	1	1,605.00
Site 2	NA			
Site 3	NA			

Comments:
LAB PACK OF MISC. CHEMICALS. DISPOSAL METHODS VARIED.

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Potassium hydroxide and water used to clean wafers.

B. EPA hazardous waste codes (page 12)				C. State hazardous waste codes (page 13)
D002	NA	NA	NA NA	CA 122

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A03	1	B110	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
825.00	5 Density 1.00 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	825.00
Site 2	NA			
Site 3	NA			

Comments:

ATTACHMENT 4

SITE PHOTOGRAPHS

Compliance Evaluation Inspection Field Photograph Log
Crystal Technology, Inc., Palo Alto, California

Photo 1 - Acid Sink - Empty poly jugs.
No labels.

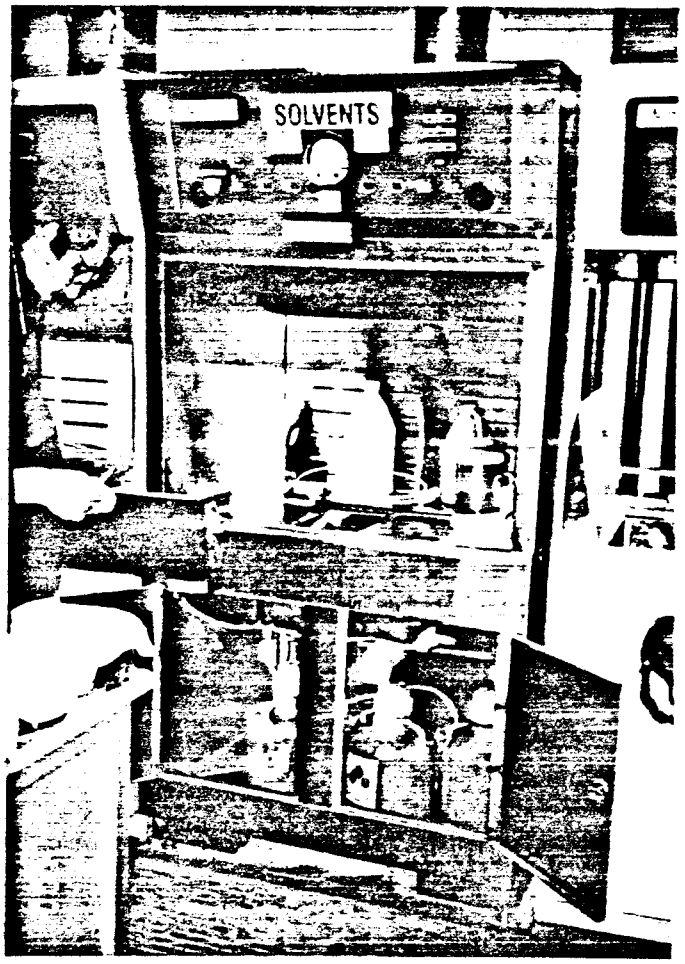


Photo 2 - Solvent Sink, 2.5-gallon jug of solvent, no accumulation start date.

Photo 3 - Acid Storage Area - General photo of waste and products

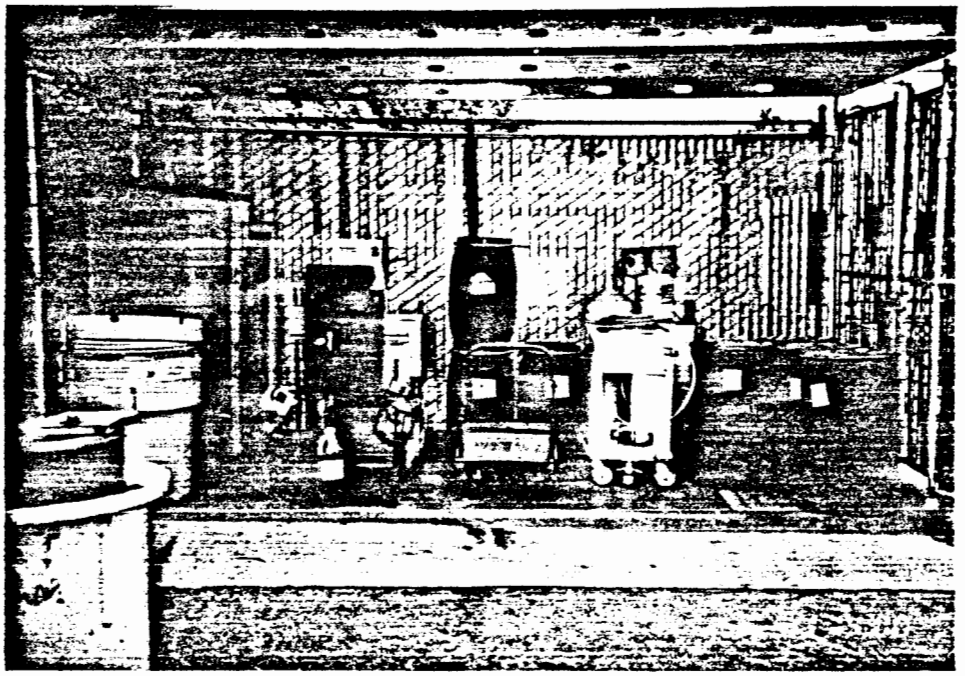


Photo 4 - Solvent Storage Area - General photo of waste and products

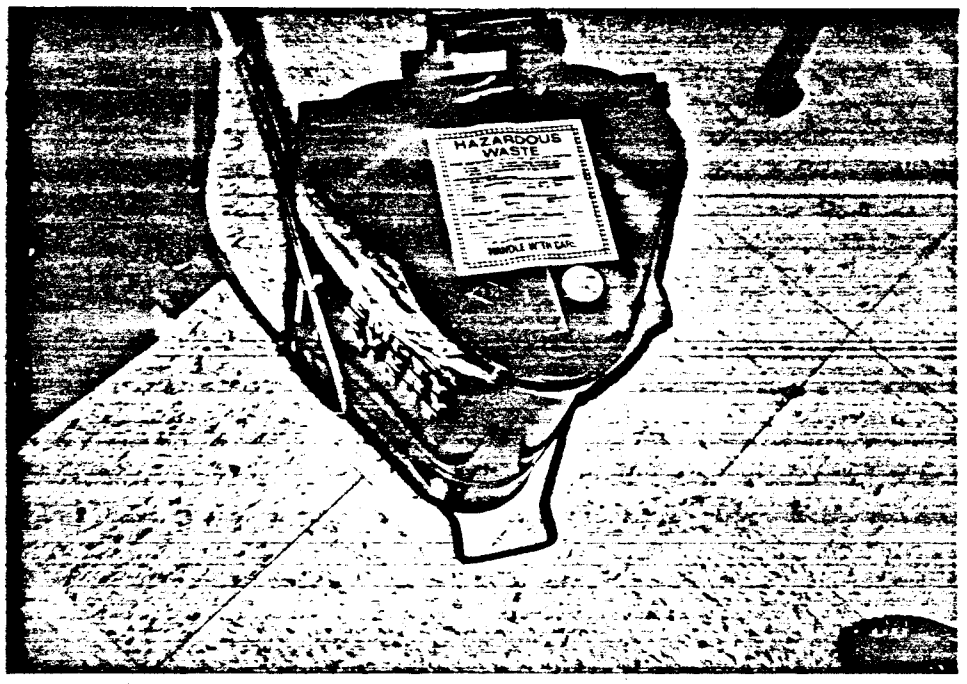


Photo 5 - For acetone and methanol wipes -labeled "Empty every night"

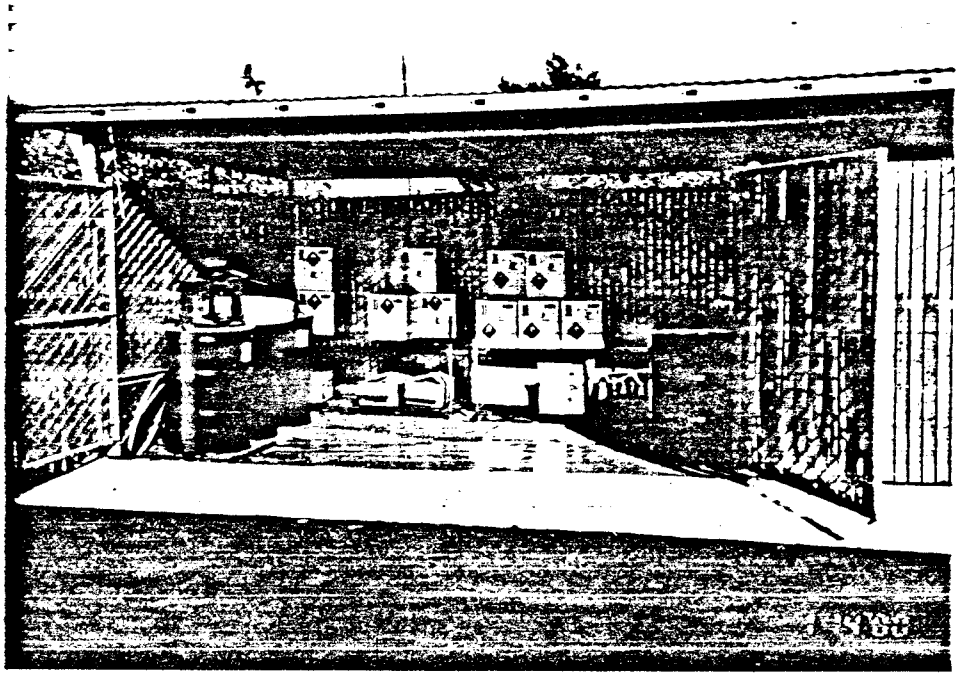


Photo 6 - Solvent Storage Area, Building 1040

ATTACHMENT 5

MSDS OF CHEMICALS USED AT CRYSTAL TECHNOLOGY, INC.

MONSANTO -- **SYTON HT-50 COLLOIDAL SILICA**
MATERIAL SAFETY DATA SHEET
NSN: 803000N072712
Manufacturer's CAGE: 76541
Part No. Indicator: A
Part Number/Trade Name: SYTON HT-50 COLLOIDAL SILICA

General Information
Company's Name: MONSANTO CO
Company's Street: 800 NORTH LINDBERGH BLVD
Company's City: ST LOUIS
Company's State: MO
Company's Country: US
Company's Zip Code: 63167
Company's Emerg Ph #: 314-694-1000;800-424-9300(CHEMTREC)
Company's Info Ph #: 315-737-7381
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SMJ
Date MSDS Prepared: 01MAY90
Safety Data Review Date: 06SEP96
MSDS Serial Number: CBYTV

Ingredients/Identity Information
Proprietary: NO
Ingredient: SILICA GEL; (SILICATE)
Ingredient Sequence Number: 01
Percent: 50
NIOSH (RTECS) Number: VV7310000
CAS Number: 112945-52-5
OSHA PEL: 6 MG/M3
ACGIH TLV: 10 MG/M3

Physical/Chemical Characteristics
Appearance And Odor: MILKY WHITE LIQUID, ODORLESS
Boiling Point: 212F,100C
Melting Point: 32.0F,0.0C
Vapor Pressure (MM Hg/70 F): 24 @ 25C
Vapor Density (Air=1): SUP DAT
Specific Gravity: 1.38 (H*2O=1)
Evaporation Rate And Ref: <1 (BUTYL ACETATE=1)
Solubility In Water: 100%
pH: SUPDAT

Fire and Explosion Hazard Data
Flash Point: WILL NOT BURN
Lower Explosive Limit: N/A
Upper Explosive Limit: N/A
Extinguishing Media: AS APPROPRIATE FOR COMBUSTIBLES IN AREA.
Special Fire Fighting Proc: Wear NIOSH approved SCBA And full protective equipment (FP N).

Unusual Fire And Expl Hazrds: NONE.

Reactivity Data
Stability: YES
Cond To Avoid (Stability): NO KNOWN HAZARDOUS INSTABILITY.
Materials To Avoid: NO KNOWN HAZARDOUS INCOMPATIBILITY.
Hazardous Decomp Products: NO KNOWN HAZARDOUS DECOMPOSITION.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT.

Health Hazard Data
LD50-LC50 Mixture: LD50 (ORAL RAT): 7500 MG/KG.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: NO
Health Haz Acute And Chronic: Acute: breathing dried dust or spray mist may cause irritation. Repeated skin contact may irritate some people. Colloidal silica may cause mild, transient eye irritation. Chronic: none specified by manufacturer.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT.
Signs/Symptoms Of Overexp: Eyes: mild eye irritation with discomfort, tearing or blurring of vision. Inhalation: temporary lung effects with cough. Discomfort, difficulty, or shortness of breath.
Med Cond Aggravated By Exp: Colloidal silica may cause a tissue response in the lung (pneumoconiosis) if mists or dusty dried particles are inhaled.

Emergency/First Aid Proc: Eyes: immediately flush with plenty of water for at least 15 minutes. Call md. Skin: flush with water. Ingestion: no specific intervention is indicated as compound is not likely to be remove to fresh air. Support breathing (give oxygen or artificial respiration) (FP N).

Precautions for Safe Handling and Use
Steps If Matl Released/Spill: FLUSH WITH WATER TO CHEMICAL SEWER.
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS.
Precautions-Handling/Storing: Keep containers tightly closed. Store at temperatures above 2C (35F) to avoid irreversible precipitation of silica.
Other Precautions: NONE SPECIFIED BY MANUFACTURER.

Control Measures
Respiratory Protection: Use NIOSH Approved respirator where dust or spray mist occurs.
Ventilation: local exhaust when sprayed to prevent overspray to atmosphere. Mechanical (general) ventilation: good general vent.
Protective Gloves: RUBBER GLOVES.
Eye Protection: ANSI APPRVD CHEM WORKERS GOGGS (FP N).
Other Protective Equipment: Emergency eyewash & deluge shower meeting ANSI design criteria (FP N).
Work Hygienic Practices: Avoid contact with eyes, skin, and clothing. Avoid breathing dust or

spray mist. Wash thoroughly after handling.
Suppl. Safety & Health Data: VAP DENS: VAPOR IS WATER. PH: 9.8-10.6 @ 25C.

Transportation Data
Disposal Data

Label Data
Label Required: YES
Technical Review Date: 06SEP96
Label Date: 06SEP96
Label Status: G
Common Name: SYTON HT-50 COLLOIDAL SILICA
Chronic Hazard: NO
Signal Word: CAUTION!
Acute Health Hazard-Slight:
Contact Hazard-Slight:
Fire Hazard-None:
Reactivity Hazard-None:
Special Hazard Precautions: Acute: breathing dried dust or spray mist may cause irritation. Repeated skin contact may irritate some people. Colloidal silica may cause mild, transient eye irritation. Chronic: none specified by manufacturer.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: MONSANTO CO
Label Street: 800 NORTH LINDBERGH BLVD
Label City: ST LOUIS
Label State: MO
Label Zip Code: 63167
Label Country: US
Label Emergency Number: 314-694-1000;800-424-9300(CHEMTREC)

LIST OF ATTACHMENTS

1. Notice of Hazardous Waste Activity
2. 1997 Biennial Report
3. Diagram of the Crystal Technology Facility
4. Site Photographs
5. MSDS of Chemicals used at Crystal Technology, Inc.
6. Manifest Tracking Log

ATTACHMENT 6

MANIFEST TRACKING LOG

Crystal Technology

Manifest Tracking Log

Manifest #	Date Submitted	Action Date	Date Received	Comments
98834243	1/7/99	2/7/99	1/12/99	
98879603	1/15/99	2/15/99	1/21/99	
98879686	1/21/99	2/21/99	1/26/99	
98879863	1/28/99	2/28/99	2/23/99	FAXED Copy
98037757	1/8/99	2/8/99	2/1/99	
98832838	2/4/99	3/4/99	2/11/99	
98832967	2/11/99	3/11/99	2/22/99	
98833104	2/18/99	3/18/99	2/24/99	
99291246	2/25/99	3/25/99	3/9/99	
99221360	3/4/99	4/4/99	3/11/99	
99291560	3/11/99	4/11/99	3/19/99	
99290547	3/19/99	4/19/99	3/25/99	
98557171	3/19/99	4/19/99	3/25/99	LAB Pack
99290661	3/25/99	4/25/99	4/5/99	
99292017	4/1/99	5/1/99	4/8/99	
99292152	4/8/99	5/8/99	4/14/99	
99292292	4/15/99	5/15/99	4/21/99	
98886480	4/22/99	5/22/99	4/27/99	
98037841	4/21/99	5/21/99	5/5/99	Asbestos
99134999	5/6/99	6/6/99	5/11/99	

CRYSTAL TECHNOLOGY
CRUCIBLE PREPARATION ROOM
6-28-00

Crystal Technology, Inc.
An EPCOS Company

June 29, 2000

U.S. Environmental Protection Agency, Region IX
Attn: Cameron McDonald
75 Hawthorne Street
San Francisco, CA 94105

Ref. WST-3-1

Dear Ms. McDonald:

Regarding your 1/13/00 Compliance Evaluation Inspection (CEI) report of Crystal Technology, Inc. (CTI), enclosed, please find a recent photograph of the 2.5-gallon polyethylene jugs used to collect waste solvent (and water mix) in our 1051 Building Crucible Preparation Room.. It is difficult to see in the photograph, however, all required information is present, including the accumulation start date. A photocopy of the individual labels is attached.

Also, please note that all Crystal Technology employees that handle hazardous waste have undergone, or will shortly undergo, refresher training that highlights labeling and marking requirements.

Please feel free to contact me @ (650) 354-0165 if you have questions or if I may be of assistance. Thank you.

Sincerely,

Al Toy
Environment, Health & Safety Manager

EPA ID# CAD 980 882 369

Cc: Charles McLaughlin, CAL EPA, DTSC
Georg Eberharter, President & CEO, Crystal Technology, Inc.

1040 East Meadow Circle
Palo Alto, California 94303-4230
Direct Line # _____
Direct Fax # _____

Corporate Offices: (650) 856-7911
Corporate Fax: (650) 424-8806
Sales Fax: (650) 354-0173
www.crystaltechnology.com

HAZARDOUS WASTE

State and Federal Law Prohibits Improper Disposal.
If found, contact the nearest police, or public safety authority or the U.S. Environmental Protection Agency or the California Department of Health Services.

Generator: CRYSTAL TECHNOLOGY INC
1040 EAST MEADOW CIRCLE
PALO ALTO, CA 94303
EPA I.D. # CAD980882369 Phone: (650)856-7916

Manifest/Document#: _____ _____

Accumulation Start Date: _____ _____

Profile#: E 339531 CA HW Code: 212
Physical State: Liquid
Haz Properties: Flammable Liquid
Composition: ACETONE, ETHANOL, TOLUENE, METHANOL, ISOPROPYL ALCOHOL

PSN: WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE,METHANOL)

EPA Codes: D001 F003 F005

HAZARDOUS WASTE

ACCUMULATION START DATE 6-28-00

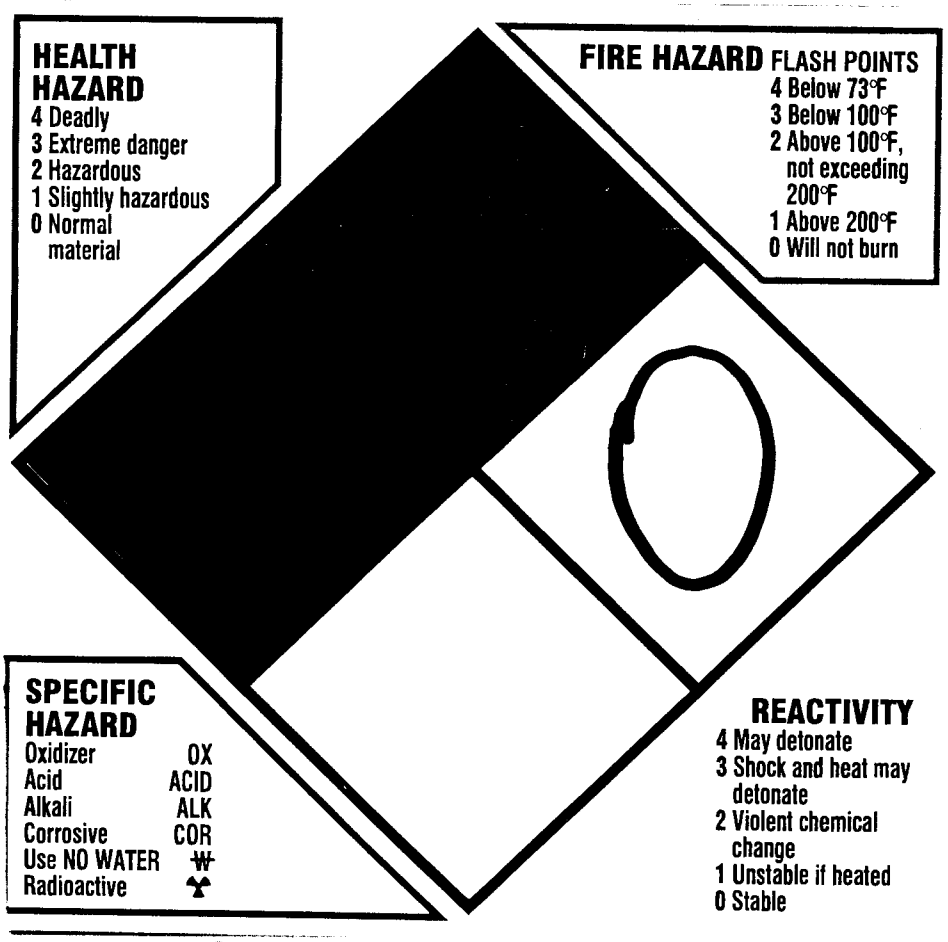
CONTENTS Methanol, Water

HANDLE WITH CARE!

CONTAINS HAZARDOUS OR TOXIC WASTES

Reorder No. 620

Lab Safety Supply Inc.

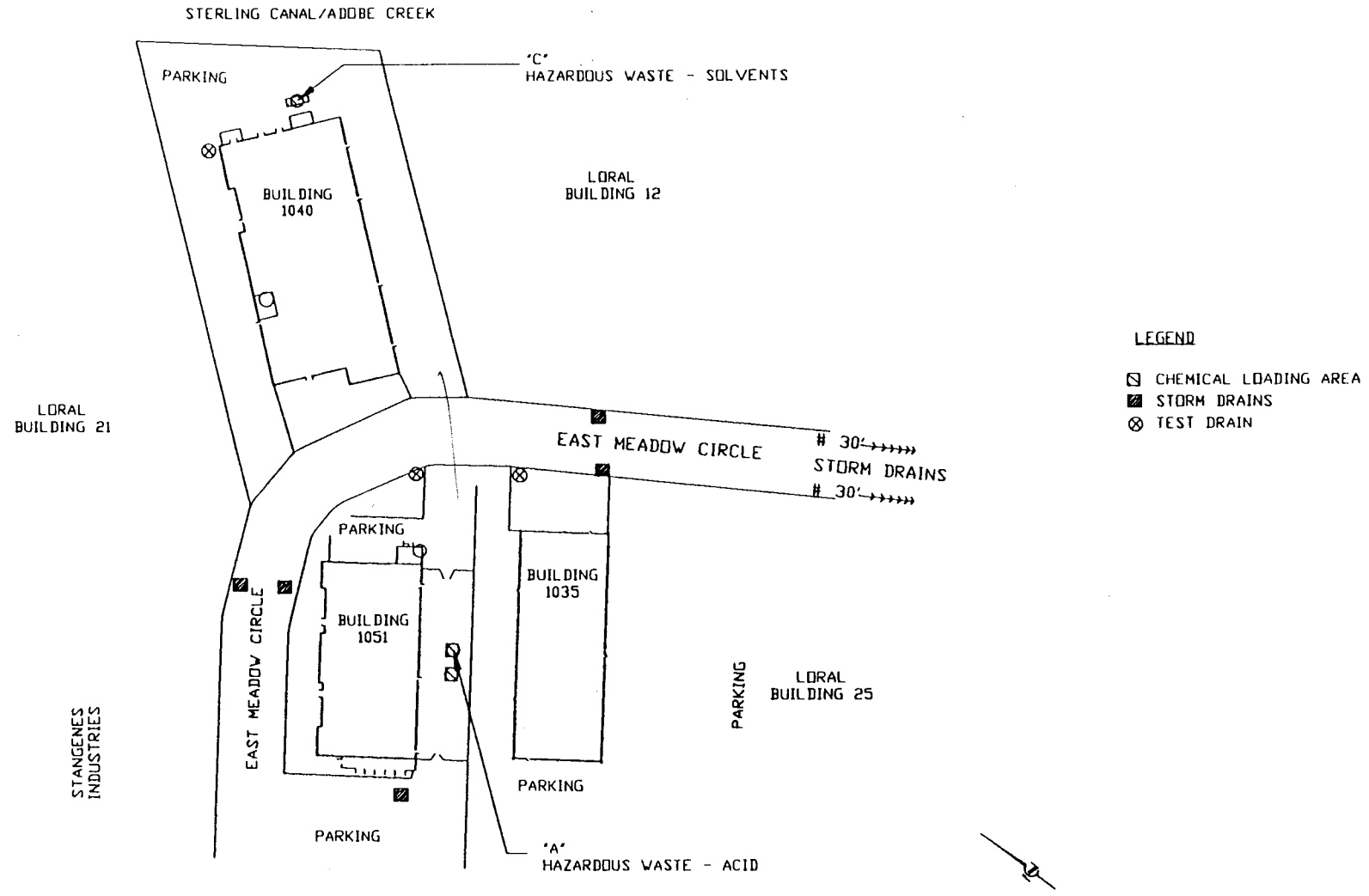


Crystal Technology, Inc.
An EPCOS Company
1040 East Meadow Circle
Palo Alto, California 94303-4230

★ ★ ★ UNITED STATES POSTAGE
175 PB852957
0254 $ 00.33 0 JUN 30 0
5325 MAILED FROM PALO ALTO CA 94303

U.S. Environmental Protection Agency, Region
IX
Attn: Cameron McDonald
75 Hawthorne Street
San Francisco, CA 94105

94105X3320 04



HAZSTC

CRYSTAL TECHNOLOGY, INC.

1040 E. MEADOW CIRCLE

PALO ALTO, CA

DR. BY: G.P.T.	REV. NO:	HAZARDOUS WASTE STORAGE AREAS
DATE: 12-01-92	DATE:	

CHEMICAL DATA MANAGEMENT SYSTEMS
11750 DUBLIN BLVD., STE. 201 DUBLIN, CA 94568 (510) 551-7300

Department of Toxic Substances Control

Jesse R. Huff, Director
10151 Croydon Way, Suite 3
Sacramento, California 95827-2106

Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

January 19, 1999

Mr. Al Toy
Crystal Technology, Incorporated
1040 East Meadow Circle
Palo Alto, California 94303-4230

Dear Mr. Toy:

Thank you for using the Department of Toxic Substances Control's Consultative Services program. This information is provided as follow-up to our January 13, 1999 visit to the Crystal Technology facility. In general, the facility's hazardous waste management program appeared well organized and near compliance with applicable requirements.

Discussion during the visit generated a few questions and the walk-through of the facility produced a labeling issue. Those questions and the labeling issue are discussed below.

Walk-Through

Over-all, most containers used to accumulate hazardous waste were found to be labeled and closed as required by regulation. However, two small containers of lead contaminated wipes and other lead wastes located in room C7 were missing hazardous waste labels. All other containers in that area and other areas of the facility appeared to have appropriate label information. The spent solvent transfer cart appeared to be a safe and efficient way to transfer those wastes.

The dedicated hazardous waste accumulation area located in back of the 1040 East Meadow Circle building appeared clean and orderly. However, we did observe a two gallon metal container which apparently contained useable material (supposedly an oil) that had no label or other information on it. As mentioned during review of this area, all containers of hazardous waste as well as hazardous materials (such as useable products) are required to be labeled to ensure safe handling.

Review of hazardous waste activities at the buildings on the opposite side of the street did not reveal any compliance issues. We should mention, however, that if waste is not being added to the drum in the dedicated accumulation area, its lid, gasket, ring, and bolt should be in place. There are lever-lock drum rings available that allow easier opening and closing of drums.

Questions

1) Should additional action be taken to remove the generator identification number CAT080013899 from our records?

Upon review of our files we found that this number is inactive and no additional steps are needed to remove it from our records. It remains on our records as an inactive number.

2) When are regulations on fluorescent light tubes scheduled to be in place?

Regulations concerning the management of fluorescent light tubes, high intensity discharge (HID) lamps, small batteries, pesticide containers, and perhaps other waste streams are being proposed within a package called "Universal Wastes." The Department is hoping to provide public notice concerning the proposal in March of this year. If all goes as planned, the regulations should be final by late summer. At this point, the proposed language would require that all fluorescent light tubes and HID lamps be recycled or managed as hazardous waste. You may want to review our website periodically for news on this regulatory package and others.

3) What form of authorization is required to operate an onsite solvent distillation unit?

Section 25143.2(c)(2), Chapter 6.5, Division 20, Health and Safety Code (HSC) authorizes a generator to treat hazardous waste without a permit so long as the waste is handled properly prior to being recovered and the recovered material is reused onsite. The use of a distillation unit to recover spent solvents generated onsite and subsequently reused onsite is a good example of how this statute encourages recycling. A copy of HSC section 25143.2(c)(2) is provided below.

(c) Except as otherwise provided in subdivision (e), any recyclable material may be recycled at a facility that is not authorized by the department pursuant to the applicable hazardous waste facilities permit requirements of Article 9 (commencing with Section 25200) if either of the following requirements is met:

(1) The material is a petroleum refinery waste containing oil that is converted into petroleum coke at the same facility at which the waste was generated unless the resulting coke product would be identified as a hazardous waste under this chapter.

(2) The material meets all of the following conditions:

(A) The material is recycled and used at the same facility at which the material was generated.

(B) The material is recycled within the applicable generator accumulation time limits specified in Section 25123.3 and the regulations adopted by the department pursuant to paragraph (1) of subdivision (b) of Section 25123.3.

(C) The material is managed in accordance with all applicable requirements for generators of hazardous wastes under this chapter and regulations adopted by the department.

As provided in the statute above, the material or activity must also meet subdivision (e)

conditions. Review of subdivision (e) does not indicate any areas of concern in regard to onsite distillation units, but we have included a copy of subdivision (e) below for your information.

(e) Notwithstanding subdivisions (b), (c), and (d), all of the following recyclable materials are hazardous wastes and subject to full regulation under this chapter, even if the recycling involves use, reuse, or return to the original process as described in subdivision (b), or even if the recycling involves activities or materials described in subdivisions (c) and (d):

(1) Materials which are a RCRA hazardous waste, as defined in Section 25120.2, used in a manner constituting disposal, or used to produce products that are applied to the land including, but not limited to, materials used to produce a fertilizer, soil amendment, agricultural mineral, or an auxiliary soil and plant substance.

(2) Materials which are a non-RCRA hazardous waste, as defined in Section 25117.9, and used in a manner constituting disposal or used to produce products that are applied to the land as a fertilizer, soil amendment, agricultural mineral, or an auxiliary soil and plant substance. The department may adopt regulations to exclude materials from regulation pursuant to this paragraph.

(3) Materials burned for energy recovery, used to produce a fuel, or contained in fuels, except materials exempted under paragraph (1) of subdivision (c) or excluded under subparagraph (B), (C), or (D) of paragraph (2) of subdivision (d).

(4) Materials accumulated speculatively.

(5) Materials determined to be inherently wastelike pursuant to regulations adopted by the department.

(6) Used or spent etchants, stripping solutions, and plating solutions that are transported to an offsite facility operated by a person other than the generator and which are either of the following:

(A) The etchants or solutions are no longer fit for their originally purchased or manufactured purpose.

(B) If the etchants or solutions are reused, the generator and the user cannot document that they are used for their originally purchased or manufactured purpose without prior treatment.

(7) Used oil, as defined in subdivision (a) of Section 25250.1, unless one of the following applies:

(A) The used oil is excluded under subparagraph (B) or (C) of paragraph (2) of subdivision (d), paragraph (4) of subdivision (d), subdivision (e) of Section 25250.1, Section 25250.2, or Section 25250.3, and is managed in accordance with the applicable requirements of Part 279 (commencing with Section 279.1) of Title 40 of the Code of Federal Regulations.

(B) The used oil is used or reused on the site where it was generated or is excluded under paragraph (3) of subdivision (d), and is managed in accordance with the applicable requirements of Part 279 (commencing with Section 279.1) of Title 40 of the Code of Federal Regulations, and is not any of the following:

(I) Used in a manner constituting disposal or used to produce a product that is applied to land.

(ii) Burned for energy recovery or used to produce a fuel unless the used oil is excluded under subparagraph (B) or (C) of paragraph (2) of subdivision (d).

(iii) Accumulated speculatively.

(iv) Determined to be inherently wastelike pursuant to regulations adopted by the department.

In addition, the Department is considering the adoption of a federal exemption for "totally enclosed treatment units." The exemption, which is presently found in section 261.4(a)(8), Title 40, Code of Federal Regulations (CFR), would not provide a significant increase of benefit over the exemption which currently exists in HSC section 25143.2(c)(2). We do not expect adoption of the federal exemption until at least late summer.

Therefore, you could use a solvent recovery unit to reclaim spent solvents without

obtaining any additional authorization from the Department so long as HSC section 25143.2(c)(2) conditions are met. The distillation unit does not have to be directly connected to the product cleaning station. The distillation unit could be in another room or another building (so long as that building is considered to be on the same "site" as the product cleaning station).

If you use a solvent distillation unit and recycle more than 100 kilograms a month of solvent under a claim that it qualifies for an exemption under HSC section 25143.2, HSC section 25143.10 requires that you report specified information to the CUPA every two years. The section also gives the CUPA the authority to waive the reporting requirement if they see no need to receive that information. Contact the CUPA for more information and report forms if necessary. A copy of HSC section 25143.10 is provided below.

25143.10. (a) Except as provided in subdivisions (e) and (f), any person who recycles more than 100 kilograms per month of recyclable material under a claim that the material qualifies for exclusion or exemption pursuant to Section 25143.2 shall, on or before July 1, 1992, and every two years thereafter, provide to the local officer or agency authorized to enforce this section pursuant to subdivision (a) of Section 25180, all of the following information, using the format established pursuant to subdivision (d), in writing:

(1) The name, site address, mailing address, and telephone number of the owner or operator of any facility that recycles the material.

(2) The name and address of the generator of the recyclable material.

(3) Documentation that the requirements of any exemptions or exclusions pursuant to Section 25143.2 are met, including, but not limited to, all of the following:

(A) Where a person who recycles the material is not the same person who generated the recyclable material, documentation that there is a known market for disposition of the recyclable material and any products manufactured from the recyclable material.

(B) Where the basis for the exclusion is that the recyclable material is used or reused to make a product or as a safe and effective substitute for a commercial product, a general description of the material and products, identification of the constituents or group of constituents, and their approximate concentrations, that would render the material or product hazardous under the regulations adopted pursuant to Sections 25140 and 25141, if it were a waste, and the means by which the material is beneficially used.

(b) Except as provided in Section 25404.5, the governing body of a city or county may adopt an ordinance or resolution pursuant to Section 101325 to pay for the actual expenses of the activities carried out by local officers or agencies pursuant to subdivision (a).

(c) If a person who recycles material under a claim that the material qualifies for exclusion or exemption pursuant to Section 25143.2 is not the same person who generated the recyclable material, the person who recycles the material shall, on or before July 1, 1992, and every two years thereafter, provide a copy of the information required to be submitted pursuant to subdivision (a) to the generator of the recyclable material.

(d) The person providing the information required by subdivision (a) shall use a format developed by the California Conference of Directors of Environmental Health in consultation with the department. The department shall distribute the format to local officers and agencies authorized to enforce this section pursuant to subdivision (a) of Section 25180.

(e) A recyclable material generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated nonwaste treatment manufacturing unit is not subject to the requirements of this section, until the recyclable material exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the material remains in the

unit for more than 90 days after the unit ceases to be operated for manufacturing, storage, or transportation of the product or raw material.

(f) A local officer or agency authorized to enforce this section pursuant to subdivision (a) of Section 25180 may exempt from subdivision (a) any person who operates antifreeze recycling units or solvent distillation units, where the recycled material is returned to productive use at the site of generation, or may require less information than that required under subdivision (a) from the person.

(Amended (as amended by Stats. 1995, Ch. 639) by Stats. 1996, Ch. 1023, Sec. 230. Effective September 29, 1996.)

4) What are the requirements concerning container rinsing?

Containers that held hazardous material or hazardous waste must meet applicable requirements of section 66261.7, Title 22, California Code of Regulations (CCR). Containers with a capacity of 5 gallons or less, that are "empty," and which did not contain a material listed as an acute hazardous waste in CFR sections 261.31, 261.32, or 261.33(e) or an extremely hazardous waste pursuant to any of the criteria of CCR sections 66261.110 or 66261.113 can be rinsed without additional authorization [CCR section 66261.7(c) and (d)]. Containers that do not meet those conditions can be rinsed only after the generator has received conditional exemption (CE) authorization [HSC section 25201.5(b)(2)]. A copy of CCR section 66261.7 is provided below.

§66261.7. Contaminated containers.

(a) Except as provided in Section 66262.70 and subsections (g), (h), (i), (k), (l), (m), (n), and (o) of this section, any container (as defined in Section 66260.10 of this division), or inner liner removed from a container, which previously held a hazardous material, including but not limited to hazardous waste, and which is empty as defined in subsection (b) or (d) of this section shall be exempt from regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code if it will be managed in accordance with subsection (e) of this section. Existing permits which contain specific conditions governing container cleaning operations which conflict with the provisions of these regulations may be amended to be consistent with this regulation by following the Class 2 permit modification procedures set forth in Section 66270.42(b).

(b) A container, or an inner liner removed from a container, which previously held a hazardous material, including hazardous waste, is empty if the container or the inner liner removed from a container has been emptied so that:

(1) If the hazardous material which the container or inner liner held is pourable, no hazardous material can be poured or drained from the container or inner liner when the container or inner liner is held in any orientation (e.g., tilted, inverted, etc.); and

(2) If the hazardous material which the container or inner liner held is not pourable, no hazardous material remains in or on the container or inner liner that can feasibly be removed by physical methods (excluding rinsing) which comply with applicable air pollution control laws and which are commonly employed to remove materials from that container or inner liner. Following material removal, the top, bottom and sidewalls of such a container shall not contain remaining adhered or crusted material resulting from buildup of successive layers of material or a mass of solidified material. A thin uniform layer or dried material or powder is considered acceptable. A person who treats a container or inner liner onsite by employing physical methods to satisfy the standard in this subsection is authorized to perform such treatment for purposes of Health and Safety Code Section 25201.

(c) A person who treats a container or an inner liner removed from a container of five gallons or less in capacity which has been emptied pursuant to subsection (b) of this section is authorized, for purposes of Health and Safety Code Section 25201, to perform such activities if any rinsate or other residue generated by these

activities is completely captured and classified in accordance with the provisions of this division and any applicable waste discharge requirements.

(d) A container or an inner liner removed from a container that has held a material listed as an acute hazardous waste in Sections 261.31, 261.32, or 261.33 (e) Title 40 of the Federal Code of Regulations or a waste which is extremely hazardous pursuant to any of the criteria of Sections 66261.110, 66261.113, and Title 22, California Code of Regulations, Division 4.5, Chapter 11, Appendix X is empty if:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the waste and all pourable residues have been removed from the container or inner liner in accordance with subsection (b)(1) of this section. Triple rinsing activities shall require specific authorization from the Department unless subject to the provisions of Health and Safety Code Section 25143.2(c)(2); or

(2) The container or inner liner is cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal. Alternative methods to rinsing require prior approval by the Department.

(e) In order to retain the exemption under this section, an empty container or an inner liner removed from a container must be managed by one of the following methods:

(1) Except as otherwise provided in Section 42170 of the Public Resources Code, for containers of five gallons or less in capacity, or inner liners removed from containers of five gallons or less in capacity, by disposing of the container or inner liner at an appropriate solid waste facility, provided that the container or inner liner is packaged and transported in accordance with applicable U.S. Department of Transportation regulations (49 CFR Part 173); or

(2) By reclaiming its scrap value onsite or shipping the container or inner liner to a person who reclaims its scrap value, provided that the container or inner liner is packaged and transported in accordance with applicable U.S. Department of Transportation regulations (49 CFR Part 173); or

(3) By reconditioning or remanufacturing the container or inner liner onsite pursuant to 49 CFR Section 173.28 (c) and (d) (revised at 55 FR 52402 - 52729) for subsequent reuse, or shipping the container or inner liner to a person who reconditions or remanufactures the container or inner liner pursuant to 49 CFR Section 173.28 (c) and (d) (revised at 55 FR 52402 - 52729); or

(4) By shipping the container or inner liner to a supplier or to another intermediate collection location for accumulation prior to managing the container or inner liner pursuant to subsections (e)(1), (e)(2) or (e)(3) of this section, provided that the container or inner liner is packaged and transported in accordance with applicable U.S. Department of Transportation regulations.

(f) A container or an inner liner removed from a container larger than five gallons in capacity which is managed pursuant to subsection (e) of this section shall be marked with the date it has been emptied and shall be managed within one year of being emptied.

(g) Any person who generates an empty container or an inner liner larger than five gallons in capacity which previously held a hazardous material shall maintain, and provide upon request, to the Department, the Environmental Protection Agency, or any local agency or official authorized to bring an action as provided in Health and Safety Code Section 25180 the name, street address, mailing address and telephone number of the owner or operator of the facility where the empty container has been shipped. The above information shall be retained onsite for a period of three years.

(h) Uncontaminated containers, where an inner liner has prevented contact of the hazardous material with the inner surface of the container, are not hazardous waste subject to regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code.

(i) Containers or inner liners which previously held a hazardous material which are sent back to the supplier for the purpose of being refilled are exempt from regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code if all of the following requirements are met:

(1) The container or inner liner was last used to hold a hazardous material acquired from a supplier of hazardous materials;

(2) The container or inner liner is empty pursuant to the standards set forth in Section 261.7 of Title 40 of the Code of Federal Regulations;

(3) The container or inner liner is returned to a supplier of hazardous materials for the purpose of being refilled, provided that the supplier's reuse of the container or inner liner is in compliance with the requirements of Section 173.28 of Title 49 of the Code of Federal Regulations;

(4) The container or inner liner is not treated prior to being returned to the supplier of hazardous materials, except as authorized by this section;

(5) The container is not treated (except as authorized by this section) by the supplier of hazardous materials without obtaining specific authorization from the Department; and

(6) The container or inner liner is refilled by the supplier with hazardous material which is compatible with the hazardous material which the container or inner liner previously held unless the container has been adequately decontaminated.

(j) If the supplier, upon receiving a container or an inner liner pursuant to subsection (i) of this section, is unable to refill the container or inner liner, the supplier shall empty the container or inner liner pursuant to subsections (b) or (d) of this section and manage the container or inner liner pursuant to subsection (e) of this section.

(k) Emptied household hazardous material and pesticide container, or inner liners removed from containers, of five gallon or less in capacity, are exempt from regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code if the container or inner liner is emptied by removing all of the contents that can be removed using practices commonly employed to remove materials from that type of container.

(l) A compressed gas cylinder is exempt from regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code when the pressure in the container approaches atmospheric pressure.

(m)(1) Provided that they are not a RCRA regulated hazardous waste, as defined in Section 66260.10 of this division, aerosol containers are exempt from regulation under this division and Chapter 6.5 of Division 20 of the Health and Safety Code if the aerosol container was emptied of the contents and propellant to the maximum extent practical under normal use (i.e., the spray mechanism was not defective and thus allowed discharge of the contents and propellant).

(2) Unless otherwise exempt under other provisions of law, aerosol containers which held a material listed as an acute hazardous waste in Sections 261.31, 261.32, or a material identified as an acute hazardous waste in Section 261.33(e), Title 40 of the Code of Federal Regulations, or a waste which is extremely hazardous pursuant to any of the criteria of Sections 66261.110, 66261.113, and Title 22, California Code of Regulations, Division 4.5, Chapter 11, Appendix X are not exempt under this section and shall be managed as hazardous waste in acccordance with this division and Chapter 6.5 of Division 20 of the Health and Safety Code (commencing with Section 25100).

(3) For purposes of this section, "aerosol container" means a pressurized, sealed container which contains a product and liquified or compressed gases, and which can dispense that product by the activation of a pressure-sensitive valve.

(n) Containers made of wood, paper, cardboard, fabric, or any other similarly absorptive material are not exempt from regulation under this division or Chapter 6.5 of Division 20 of the Health and Safety Code if the container was in direct contact with and has absorbed the hazardous waste or a hazardous material.

(o) The following items are not containers for purposes of this section and should continue to be managed as specified below:

(1) Used oil filters managed pursuant to Section 66266.130 of this division.

(2) PCB or PCB contaminated electrical equipment, including but not limited to, transformers and capacitors managed pursuant to 40 CFR Section 761.60, or Section 66268.29(b) of this division, so that the Soluble Threshold Limit Concentration (STLC) and the Total Threshold Limit Concentration (TTLC) values set forth in Section 66261.24(a)(2) of this division are not exceeded.

(3) Chemotherapy drug intravenous (IV) bags or tubing used for the delivery of chemotherapy agents managed pursuant to Chapter 6.1 of Division 20 of the Health and Safety Code.

(4) Vehicles and vehicle related containers (e.g., roll-off bins, baker tanks, etc.) of the type certified for transportation of hazardous waste, pursuant to Health and Safety Code Section 25169.1.

(p) Any container, or inner liner removed from a container, which previously held a hazardous material, including but not limited to hazardous waste, and which is not empty as defined in subsections (b) or (d) of this section, or otherwise exempt from regulation as a hazardous waste under this division or Chapter 6.5 of Division 20 of the Health and Safety Code (commencing with Section 25100), shall be managed as a hazardous waste in accordance with this division and Chapter 6.5 of Division 20 of the Health and Safety Code (commencing with Section 25100).

You mentioned that the facility generates containers that held acetone, IPA, and methanol. Although acetone and methanol are listed in CFR sections 261.31 and 261.33(e), they are not listed because of acute toxicity, they are listed because of their low flash point. Therefore, it is acceptable to rinse (without receiving CE) containers that held acetone, IPA, or methanol so long as they are 5 gallon or less in capacity, empty (so that if held in any orientation no material can be poured out), and the rinsate is managed properly. Spent rinsate from containers that held methanol or acetone is considered a "listed waste" if it exhibits a hazardous characteristic of ignitability (CCR section 66261.21). If it does not exhibit a characteristic, it is not regulated as a hazardous waste [CCR section 66261.3(a)(2)(D)].

The program used 6 hours (including driving time) to provide the facility visit and 4 hours to respond to questions and issues. Therefore, our accounting office will send you an invoice within the next couple of months for 10 hours (at approximately $77.00/hour).

Enclosed is a copy of the program's certification and survey forms. Please contact me if you have any questions or require additional assistance.

Sincerely,

Leif Peterson
Consultative Services
Office of External Affairs

Enclosures

Department of Toxic Substances Control

Jesse R. Huff, Director
10151 Croydon Way, Suite 3
Sacramento, California 95827-2106

Gray Davis
Governor

January 19, 1999

Winston H. Hickox
Secretary for
Environmental
Protection

Mr. Al Toy
Crystal Technology, Incorporated
1040 East Meadow Circle
Palo Alto, California 94303-4230

CERTIFICATION STATEMENT

Consultative Services' main goal is to help California businesses comply with hazardous waste management requirements. In order to help ensure the correction of possible hazardous waste management compliance issues discovered during an onsite walk-through and to ensure that the program's services are effectively used, it is important that this certification form be returned for our files.

By signing this form, you are informing Consultative Services that you have reviewed the information provided to you during the walk-through, in the follow-up document, and have implemented compliance related changes as necessary. Maintaining compliance with applicable hazardous waste management requirements helps to protect public health, the environment, and your employees.

Al Toy _____ 1-26-99

Signature of Company Representative Date

Please return this form to:

Consultative Services
Department of Toxic Substances Control
10151 Croydon Way, Suite 3
Sacramento, CA 95827-2106

Attention: Leif Peterson

Department of Toxic Substances Control

Jesse R. Huff, Director
10151 Croydon Way, Suite 3
Sacramento, California 95827-2106

Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

CONSULTATIVE SERVICES SURVEY FORM

Thank you for using Consultative Services. We hope that the program has met your needs. Please take a minute to give us your comments.

1) Any ideas on how we could improve the program?

_____

_____

_____

2) List any benefits from using this program.

_____

_____

_____

3) Any other comments?

_____

_____

_____

Again, thanks for using the program. Please return survey to the letterhead address attention: Leif Peterson, Consultative Services.

Crystal Technology, Inc.
An EPCOS Company

January 14, 2000

U.S. Environmental Protection Agency, Region IX
Attn: Cameron McDonald
75 Hawthorne Street
San Francisco, CA 94105

Dear Ms. McDonald

Enclosed, please find copies of the documents you requested during your site visit of 1/14/00.

Please feel free to contact me @ (650) 354-0165 if you have questions or if I may be of assistance. Thank you.

Sincerely,

Al Toy

Al Toy
Environment, Health & Safety Manager

Received
JAN 17, 2000

1040 East Meadow Circle
Palo Alto, California 94303-4230

Direct Line # _____

Direct Fax # _____

Corporate Offices: (650) 856-7911
Corporate Fax: (650) 424-8806
Sales Fax: (650) 354-0173
www.crystaltechnology.com

Crystal Technology

Manifest Tracking Log

Manifest #	Date Submitted	Action Date	Date Received	Comments
99553776	10/7/99	11/7/99	10/15/97	
99553928	10/14/99	11/14/99	10/25/99	
99550482	10/21/99	11/21/99	11/1/99	
9950768	10/29/99	11/29/99	11/5/99	
99553327	11/4/99	12/4/99	11/8/99	
99553475	11/11/99	12/11/99	11/23/99	
99824034	11/18/99	12/18/99	12/1/99	
99824319	12/2/99	1/2/99	12/7/99	
99755644	12/9/99	1/9/99	12/16/99	
99755866	12/16/99	1/16/99	12/21/99	
98557168	12/17/99	1/17/99	12/23/99	Lab Pack
99823667	12/23/99	1/23/99	1/3/99	

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303

4. Generator's Phone (650 354-0150 Contact: AL ROY

A. State Manifest Document Number 98557168

B. State Generator's ID

5. Transporter 1 Company Name
ROMIC ENVIRONMENTAL TECH.

6. US EPA ID Number CAD [illegible]

C. State Transporter's ID B 10

D. Transporter's Phone (650)324-1638

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO [illegible]

10. US EPA ID Number [illegible]

G. State Facility's ID C A D 0 0 9 4 5 2 6 5 7

H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. 8, UN 3266, II (SODIUM HYDROXIDE, [illegible])	[illegible]	[illegible]	[illegible]	[illegible]	State 551 EPA/Other D002
b. RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8, UN 3264, II ([illegible])	[illegible]	[illegible]	[illegible]	P	State 551 EPA/Other D002
c. RQ, HAZARDOUS WASTE, SOLID, N.O.S. 9, NA 3077, III ([illegible]) (D008, [illegible])	[illegible]	DF	[illegible]	P	State 551 EPA/Other D008
d. WASTE PAINT RELATED MATERIAL 3, UN 1263, II	001	DF	[illegible]	P	State 551 EPA/Other D001

J. Additional Descriptions for Materials Listed Above
11A) CRY-005, 1×55G
B) CRY-001, 1×55G
C) CRY-002, D007, 1×30G
D) CRY-003, 1×30G

K. Handling Codes for Wastes Listed Above
a. 07 b. 07
c. 07 d. 07

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 5PM CALL [illegible] 24 HR. EMERGENCY RESPONSE #: (650)354-0165
[illegible] #32283 [illegible]
11A) 154 B) 154 C) 171 D) 127 [illegible] # 61232

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	12	[illegible]	[illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	12	[illegible]	[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
GEORGE [illegible]	[illegible]	12	20	[illegible]

[illegible]

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR — TRANSPORTER — FACILITY

98557168

DTSC 8022A (4/97)
EPA 8700—22

•Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: CAD 980 882 369

Manifest Document No.: 57168

22. Page: 2/2

Information in the shaded areas is not required by Federal law.

23. Generator's Name: CRYSTAL TECHNOLOGY

L. State Manifest Document Number: 9855716B

M. State Generator's ID:

24. Transporter ___ Company Name

25. US EPA ID Number

N. State Transporter's ID

O. Transporter's Phone

26. Transporter ___ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	WASTE BARIUM COMPOUNDS, N.O.S. 6.1, UN 1564, II (BARIUM CARBONATE)		001	DM	00150	P	551 D005
b.	WASTE CORROSIVE LIQUIDS, BASIC, INORGANIC, N.O.S. 8, UN 3266, II (SODIUM HYDROXIDE)		001	DF	00070	P	551 D002
c.	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8, UN 3264, II (NITRIC ACID)		001	DF	00030	P	551 D002
d.	NON-RCRA HAZARDOUS WASTE, LIQUID (LATEX PAINT)		001	DM	00150	P	551 NONE
e.	NON-RCRA HAZARDOUS WASTE, SOLID (BENZOIC ACID, SODIUM CHLORIDE)		001	DM	00200	P	551 NONE
f.	NON-RCRA HAZARDOUS WASTE, SOLID (ALUMINUM OXIDE, TITANIUM OXIDE)		001	DM	00250	P	551 NONE
g.	NON-RCRA HAZARDOUS WASTE, LIQUID (SILICON, DYE)		001	DM	00150	P	551 NONE
h.							
i.							

GENERATOR

S. Additional Descriptions for Materials Listed Above
28A) CRY-010, 1×55G
B) CRY-007, 1×16G
C) CRY-008, 1×16G
D) CRY-004, 1×55G
E) CRY-006, 1×55G
F) CRY-009, 1×55G
G) CRY-011, 1×55G

T. Handling Codes for Wastes Listed Above
A) 07 D) 01 G) 07
B) 07 E) 07
C) 07 F) 07

32. Special Handling Instructions and Additional Information
ERG# 28A) 154 D) N/A G) N/A
B) 154 E) N/A
C) 154 F) N/A

24HR EMERGENCY # (650) 354-0165

PROFILE # 322831

JOB # 91232

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

35. Discrepancy Indication Space

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A 5 9 3 0 0 8 4 2 3 6 9 — Manifest Document No. 24319
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
4. Generator's Phone (650) 354-0158 Contact: AL TOY

A. State Manifest Document Number 99824319
B. State Generator's ID

5. Transporter 1 Company Name — 6. US EPA ID Number
ROMIC ENVIRONMENTAL TECH. — C A D 0 0 0 9 4 5 2 6 5 7
C. State Transporter's ID [Reserved.] 376
D. Transporter's Phone (650)324-1638

7. Transporter 2 Company Name — 8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address — 10. US EPA ID Number
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303 — C A D 0 0 0 9 4 5 2 6 5 7
G. State Facility's ID C A D 0 0 0 9 4 5 2 6 5 7
H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) Prfl# E 029531 ERG# 128	001	DM	00055	G	State 312 / EPA/Other D001
b. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT BY WEIGTH 8 UN1790 II Prfl# E 017638 ERG# 157	003	DF	00165	G	State 791 / EPA/Other D002
c. WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II Prfl# E 006315 ERG# 154	001	DF	00055	G	State 122 / EPA/Other D002
d. NON-RCRA HAZARDOUS WASTE, LIQUID (OIL, FREON) Prfl# E 006316 ERG#	002	DF	00110	G	State 223 / EPA/Other NONE

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. 01 d. 01

15. Special Handling Instructions and Additional Information
24 HR. EMERGENCY RESPONSE #: (650)354-0165
FOR EMERGENCIES AFTER 3PM DIAL 408-476-1147

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Abril Corsini	Abril Corsini	1	2	99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ROSS LOBDELL	Ross Lobdell	1	2	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
TERRELL WATERS	Terrell D Waters	1	2	99

Reference Number: E 000030665

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESP CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

99824319

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. 5 5 9 2 8
2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303

4. Generator's Phone ( ) 650 354-0158 Contact: AL TOY

A. State Manifest Document Number **99553928**

B. State Generator's ID

5. Transporter 1 Company Name
ROMIC ENVIRONMENTAL TECH.

6. US EPA ID Number [illegible]

C. State Transporter's ID [Reserved.] 3-16

D. Transporter's Phone (650)324-1638

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID [Reserved.]

F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303

10. US EPA ID Number [illegible]

G. State Facility's ID C A D 0 0 9 4 5 2 4 5 7

H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) [illegible]	001	DM	00055	G	State 212; EPA/Other D001
b. ~~WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II~~ [illegible]					State [illegible]; EPA/Other ~~D002~~
c. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT STRENGTH 8 UN1790 II [illegible]	002	DF	00140	G	State 791; EPA/Other D002
d. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8 UN3264 II (HYDROCHLORIC ACID, NITRIC ACID) [illegible]	001	DF	00055	G	State 791; EPA/Other D002

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 5PM DIAL 408-476-1147
24 HR. EMERGENCY RESPONSE #: (650)354-0158

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
[illegible handwriting]	[signature]	10	14	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible handwriting]	[signature]	10	14	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

99553928

Reference Number: [illegible]

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD983038355 Manifest Document No. 86680
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
4. Generator's Phone (650 354-0158 Contact: AL TOY

A. State Manifest Document Number 98886680
B. State Generator's ID

5. Transporter 1 Company Name: ROMIC ENVIRONMENTAL TECH.
6. US EPA ID Number: CAD000315255
C. State Transporter's ID: B-16
D. Transporter's Phone: (650)324-1638

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303
10. US EPA ID Number: CAD000945257
G. State Facility's ID: CAD000945257
H. Facility's Phone: (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) Prfl# E 038531 ERG# 128	001	DM	00055	G.	State 212 / EPA/Other D001
b. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT BY WEIGHT 8 UN1790 II Prfl# E 017508 ERG# 157	001	DF	00055	G.	State 791 / EPA/Other D002
c. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8 UN3264 II (HYDROCHLORIC ACID, NITRIC ACID) Prfl# E 018752 ERG# 154	001	DF	00055	G	State 791 / EPA/Other D002
d. WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II Prfl# E 006315 ERG# 154	001	DF	00055	G.	State 122 / EPA/Other D002

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. 01 d. 01

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 5PM DIAL 408-476-1147
24 HR. EMERGENCY RESPONSE #: (650)354-0158

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper conditian for transport by highway according to applicable internatianal and natianal gavernment regulatians.

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Printed/Typed Name: Abril Conrad | Signature: Abril Conrad | Month 04 Day 22 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Neil Wade | Signature: Neil Wade | Month 04 Day 22 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operatar Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name: Patrick Elmore | Signature | Month 04 Day 22 Year 99
Reference Number: 3 XXXXXXXX

DO NOT WRITE BELOW THIS LINE.

GENERATOR
TRANSPORTER
FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

98886680

DTSC 8022A (4/97)
EPA 8700—22

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.: CAD980882369

Manifest Document No.: 86680

22. Page: 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name

CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
Phone: 650 354-0158 Contact: AL TOY

L. State Manifest Document Number: 98886680

M. State Generator's ID

24. Transporter ___ Company Name

25. US EPA ID Number

N. State Transporter's ID

O. Transporter's Phone

26. Transporter ___ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a. NON-RCRA HAZARDOUS WASTE, LIQUID (OIL, FREON) Prfl# E 306316 ERG#		001	DF	00055	G	CA: 223 EPA: NONE
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

GENERATOR

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

A - 01

32. Special Handling Instructions and Additional Information

24 HR. EMERGENCY RESPONSE #: (650)354-0165

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

35. Discrepancy Indication Space

ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION
FEDERAL LAND DISPOSAL RESTRICTION NOTIFICATION FORM

PROFILE #: 322831 | WASTEWATER/NON-WASTEWATER | MANIFEST #: 9855 7168

EPA #: D002, D008, D007, D005, D001

TABLE OF EPA WASTE NUMBERS WITH SUBCATEGORIES

CHECK	EPA#	SUBCATEGORY
X	D001	High-TOC (≥ 10%) Liquid
IOMIC	D001	Choose One: [ ] Low-TOC (< 10%) Ignitable Liquid [ ] Ignitable NON-Liquid [ ] DOT Oxidizer [ ] DOT Flammable Gas Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D001	Choose One: [ ] Low-TOC (< 10%) Ignitable Liquid [ ] Ignitable NON-Liquid [ ] DOT Oxidizer [ ] DOT Flammable Gas NOT Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D002	Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
X	D002	NOT Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D003	Reactive Cyanides
	D003	Reactive Sulfides
	D003	Water Reactives NON-Wastewaters
	D006	Cadmium-Containing Batteries
	D008	Lead-Acid Batteries
	D009	Low-Mercury (< 260 ppm) NON-Wastewaters
	D009	High-Mercury (≥ 260 ppm) NON-Wastewaters with Organics BUT NOT Incinerator Residues
	D009	High-Mercury (≥ 260 ppm) NON-Wastewaters WITHOUT Organics including Incinerator and RMERC Residues
	D009	All Mercury Wastewaters
	F025	Condensed Light Ends from the Production of Certain Chlorinated Aliphatic Hydrocarbons
	F025	Spent Filters/Aids and Spent Desiccants from the Production of Certain Chlorinated Aliphatic Hydrocarbons
	K006	Anhydrous Treatment Sludge from the Production of Chrome Oxide Green Pigments
	K006	Hydrated Treatment Sludge from the Production of Chrome Oxide Green Pigments
	K069	Calcium Sulfate (Low Lead) Emission Control Dusts/Sludge from Secondary Lead Smelting
	K069	NON-Calcium Sulfate (High Lead) NON-Wastewater Emission Control Dusts/Sludge from Secondary Lead Smelting
	K071	RMERC NON-Wastewater Residues
	K071	RMERC NON-Wastewater that IS NOT Residues
	K071	All Wastewaters
	K106	Low-Mercury (< 260 ppm) NON-Wastewater RMERC Residues
	K106	Low-Mercury (< 260 ppm) NON-Wastewater that IS NOT RMERC Residues
	K106	High-Mercury (≥ 260 ppm) NON-Wastewater
	K106	All Wastewaters
	P047	4,6-Dinitro-o-Cresol
	P047	4,6-Dinitro-o-Cresol Salts
	P065	Low-Mercury (< 260 ppm) NON-Wastewater from RMERC Residues
	P065	Low-Mercury (< 260 ppm) NON-Wastewater from Incinerator Residues
	P065	High-Mercury (≥ 260 ppm) NON-Wastewater from Incinerator or RMERC Residues
	P065	All NON-Wastewaters that ARE NOT Incinerator or RMERC Residues
	P065	All Wastewaters
	P092	Low-Mercury (< 260 ppm) NON-Wastewater from RMERC Residues
	P092	Low-Mercury (< 260 ppm) NON-Wastewater from Incinerator Residues
	P092	High-Mercury (≥ 260 ppm) NON-Wastewater from Incinerator or RMERC Residues
	P092	All NON-Wastewaters that ARE NOT Incinerator or RMERC Residues
	P092	All Wastewaters
	U151	Low-Mercury (< 260 ppm) NON-Wastewater RMERC Residues
	U151	Low-Mercury (< 260 ppm) NON-Wastewater that IS NOT RMERC Residues
	U151	High-Mercury (≥ 260 ppm) NON-Wastewater
	U151	All Wastewaters

CEMBER 19, 1994]

PAGE ____ OF ____

ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION

CALIFORNIA-ONLY (NON-RCRA) HAZARDOUS WASTE
LAND DISPOSAL RESTRICTION NOTIFICATION FORM

PROFILE #: 322831 | CA WASTE #: 551 | MANIFEST #: 9855 7168

CHECK ALL THAT APPLY	NON-RCRA WASTE CATEGORY	TREATMENT STANDARDS	TREATMENT STANDARD REFERENCE
	Btu's (> 3,000 Btu/pound)	Must be incinerated or processed by other approved methods.	22 CCR 66268.12
	Volatile Organic Compounds (Contains > 1%)	Must be incinerated or processed by other approved methods.	22 CCR 66268.12
	Liquid NON-Wastewater Solvent Waste (Liquid with ≥ 1% TOC)	Acetone, Benzene, n-Butanol, Carbon Tetrachloride, Chlorobenzene, Chloroform, Chloromethane, Cresols, Cyclohexanone, o-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Diethyl Phthalate, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Hexachlorobutadiene, Hexachloroethane, Isobutanol, Isophorone, Methanol, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Naphthalene, Methylene Chloride, Phenol, Pyridine, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene, Trichloromonofluoromethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane, and Xylene.	22 CCR 66268.10 Table III
	Organic-Containing Aqueous or Liquid Waste (Contains ≤ 1% Solids)	Chlorinated Herbicides, Organochlorine Pesticides, Organophosphorus Pesticides, PCB's as Arochlors, Semi-Volatile Organics, and Volatile Organics.	22 CCR 66268.11
X	Organic-Containing Solid Waste (Contains > 1% Solids)	Oil and Grease, Semi-Volatile Organics, and Volatile Organics.	22 CCR 66268.11
	Metal-Containing Aqueous Waste (Water with ≤ 1% Solids)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium(VI), Chromium(III), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.	22 CCR 66268.10 Table II, CCW
	Metal-Containing Solid Waste (Contains > 1% Solids)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium(VI), Chromium(III), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.	22 CCR 66268.10 Table I-C, CCWE
	PCB-Containing Waste	Liquid PCB's ≥ 5 ppm, Drained PCB or PCB-Contaminated Transformer Carcasses, PCB-Containing Electrical Equipment that is not regulated under TSCA (e.g., Small Capacitors, Light Ballasts, and Fixtures.) Refer to regulations for treatment standards.	22 CCR 66268.11
	Asbestos-Containing Waste	Friable Asbestos must be wetted or processed into a non-friable form without visible emissions; then placed into leak tight containers or wrapping.	22 CCR 66268.11
	Auto Shredder Waste	Cadmium, Chromium(VI), Chromium(Total), Copper, Lead, Mercury, Nickel, and Zinc.	22 CCR 66268.10 Table I-A, CCWE
	Foundry Sand Waste.	Cadmium, Copper, Lead, Nickel, and Zinc.	22 CCR 66268.10 Table I-B, CCWE
	Metal-Containing Foundry Baghouse Waste	Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, Vanadium, Zinc.	22 CCR 66268.10 Table I-E, CCWE
	Metal-Containing Fly Ash, Bottom Ash, Retort Ash, or Baghouse Ash NOT from Foundries	Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, Vanadium, Zinc.	22 CCR 66268.10 Table I-D, CCWE

[DECEMBER 19, 1994]

PAGE ____ OF ____

ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION
FEDERAL LAND DISPOSAL RESTRICTION NOTIFICATION FORM

PROFILE #: 322831	WASTEWATER/NON-WASTEWATER	MANIFEST #: 98557168
EPA #: D002, D008, D007, D005, D001		

TABLE OF EPA WASTE NUMBERS WITH SUBCATEGORIES

CHECK	EPA#	SUBCATEGORY
X	D001	High-TOC (≥ 10%) Liquid
ROMIC	D001	Choose One: [ ] Low-TOC (< 10%) Ignitable Liquid [ ] Ignitable NON-Liquid [ ] DOT Oxidizer [ ] DOT Flammable Gas Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D001	Choose One: [ ] Low-TOC (< 10%) Ignitable Liquid [ ] Ignitable NON-Liquid [ ] DOT Oxidizer [ ] DOT Flammable Gas NOT Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D002	Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
X	D002	NOT Managed in System discharged to Sewer or discharged to Deep Well Injection System (with NO-Migration Variance)
	D003	Reactive Cyanides
	D003	Reactive Sulfides
	D003	Water Reactives NON-Wastewaters
	D006	Cadmium-Containing Batteries
	D008	Lead-Acid Batteries
	D009	Low-Mercury (< 260 ppm) NON-Wastewaters
	D009	High-Mercury (≥ 260 ppm) NON-Wastewaters with Organics BUT NOT Incinerator Residues
	D009	High-Mercury (≥ 260 ppm) NON-Wastewaters WITHOUT Organics including Incinerator and RMERC Residues
	D009	All Mercury Wastewaters
	F025	Condensed Light Ends from the Production of Certain Chlorinated Aliphatic Hydrocarbons
	F025	Spent Filters/Aids and Spent Desiccants from the Production of Certain Chlorinated Aliphatic Hydrocarbons
	K006	Anhydrous Treatment Sludge from the Production of Chrome Oxide Green Pigments
	K006	Hydrated Treatment Sludge from the Production of Chrome Oxide Green Pigments
	K069	Calcium Sulfate (Low Lead) Emission Control Dusts/Sludge from Secondary Lead Smelting
	K069	NON-Calcium Sulfate (High Lead) NON-Wastewater Emission Control Dusts/Sludge from Secondary Lead Smelting
	K071	RMERC NON-Wastewater Residues
	K071	RMERC NON-Wastewater that IS NOT Residues
	K071	All Wastewaters
	K106	Low-Mercury (< 260 ppm) NON-Wastewater RMERC Residues
	K106	Low-Mercury (< 260 ppm) NON-Wastewater that IS NOT RMERC Residues
	K106	High-Mercury (≥ 260 ppm) NON-Wastewater
	K106	All Wastewaters
	P047	4,6-Dinitro-o-Cresol
	P047	4,6-Dinitro-o-Cresol Salts
	P065	Low-Mercury (< 260 ppm) NON-Wastewater from RMERC Residues
	P065	Low-Mercury (< 260 ppm) NON-Wastewater from Incinerator Residues
	P065	High-Mercury (≥ 260 ppm) NON-Wastewater from Incinerator or RMERC Residues
	P065	All NON-Wastewaters that ARE NOT Incinerator or RMERC Residues
	P065	All Wastewaters
	P092	Low-Mercury (< 260 ppm) NON-Wastewater from RMERC Residues
	P092	Low-Mercury (< 260 ppm) NON-Wastewater from Incinerator Residues
	P092	High-Mercury (≥ 260 ppm) NON-Wastewater from Incinerator or RMERC Residues
	P092	All NON-Wastewaters that ARE NOT Incinerator or RMERC Residues
	P092	All Wastewaters
	U151	Low-Mercury (< 260 ppm) NON-Wastewater RMERC Residues
	U151	Low-Mercury (< 260 ppm) NON-Wastewater that IS NOT RMERC Residues
	U151	High-Mercury (≥ 260 ppm) NON-Wastewater
	U151	All Wastewaters

ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION

CALIFORNIA-ONLY (NON-RCRA) HAZARDOUS WASTE
LAND DISPOSAL RESTRICTION NOTIFICATION FORM

PROFILE #: 322831	CA WASTE #: 551	MANIFEST #: 98557168

CHECK ALL THAT APPLY	NON-RCRA WASTE CATEGORY	TREATMENT STANDARDS	TREATMENT STANDARD REFERENCE
	Btu's (> 3,000 Btu/pound)	Must be incinerated or processed by other approved methods.	22 CCR 66268.12
	Volatile Organic Compounds (Contains > 1%)	Must be incinerated or processed by other approved methods.	22 CCR 66268.12
	Liquid NON-Wastewater Solvent Waste (Liquid with ≥ 1% TOC)	Acetone, Benzene, n-Butanol, Carbon Tetrachloride, Chlorobenzene, Chloroform, Chloromethane, Cresols, Cyclohexanone, o-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Diethyl Phthalate, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Hexachlorobutadiene, Hexachloroethane, Isobutanol, Isophorone, Methanol, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Naphthalene, Methylene Chloride, Phenol, Pyridine, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene, Trichloromonofluoromethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane, and Xylene.	22 CCR 66268.10 Table III
	Organic-Containing Aqueous or Liquid Waste (Contains ≤ 1% Solids)	Chlorinated Herbicides, Organochlorine Pesticides, Organophosphorus Pesticides, PCB's as Arochlors, Semi-Volatile Organics, and Volatile Organics.	22 CCR 66268.11
X	Organic-Containing Solid Waste (Contains > 1% Solids)	Oil and Grease, Semi-Volatile Organics, and Volatile Organics.	22 CCR 66268.11
	Metal-Containing Aqueous Waste (Water with ≤ 1% Solids)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium(VI), Chromium(III), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.	22 CCR 66268.10 Table II, CCW
	Metal-Containing Solid Waste (Contains > 1% Solids)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium(VI), Chromium(III), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.	22 CCR 66268.10 Table I-C, CCWE
	PCB-Containing Waste	Liquid PCB's ≥ 5 ppm, Drained PCB or PCB-Contaminated Transformer Carcasses, PCB-Containing Electrical Equipment that is not regulated under TSCA (e.g., Small Capacitors, Light Ballasts, and Fixtures.) Refer to regulations for treatment standards.	22 CCR 66268.11
	Asbestos-Containing Waste	Friable Asbestos must be wetted or processed into a non-friable form without visible emissions; then placed into leak tight containers or wrapping.	22 CCR 66268.11
	Auto Shredder Waste	Cadmium, Chromium(VI), Chromium(Total), Copper, Lead, Mercury, Nickel, and Zinc.	22 CCR 66268.10 Table I-A, CCWE
	Foundry Sand Waste.	Cadmium, Copper, Lead, Nickel, and Zinc.	22 CCR 66268.10 Table I-B, CCWE
	Metal-Containing Foundry Baghouse Waste	Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, Vanadium, Zinc.	22 CCR 66268.10 Table I-E, CCWE
	Metal-Containing Fly Ash, Bottom Ash, Retort Ash, or Baghouse Ash NOT from Foundries	Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, Vanadium, Zinc.	22 CCR 66268.10 Table I-D, CCWE

ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION

FEDERAL LAND DISPOSAL RESTRICTION NOTIFICATION FORM

TABLE OF HAZARDOUS CONSTITUENTS

CHECK	CONSTITUENT	CHECK	CONSTITUENTS
	Acenaphthene *(1,8-Dihydroacenaphthalene or Ethylenenaphthalene)*		Chrysene *(1,2-Benzphenanthrene)*
	Acenaphthylene		o-Cresol *(o-Cresylic Acid or 2-Methylphenol)*
	Acetone *(Dimethylketone or 2-Propanone)*		m-Cresol *(m-Cresylic Acid or 3-Methylphenol)*
	Acetonitrile *(Methyl Cyanide)*		p-Cresol *(p-Cresylic Acid or 4-Methylphenol)*
	Acetophenone *(Acetylbenzene or Hypnone or Phenylmethylketone)*		Cyanide *(Amenable)*
	2-Acetylaminofluorene		Cyanide *(Total)*
	Acrolein *(Acraldehyde or Acrylaldehyde or Allyl Aldehyde or 2-Propenal)*		Cyclohexanone *(Ketohexamethylene or Pimelic Ketone)*
	Acrylamide *(NOT F039)*		o,p'-DDD *(Dichlorodiphenyldichloroethane)*
	Acrylonitrile *(Propenenitrile or Vinyl Cyanide)*		p,p'-DDD *(Dichlorodiphenyldichloroethane)*
	Aldrin		o,p'-DDE *(Dichlorodiphenyldichloroethylene)*
	4-Aminobiphenyl *(4-Biphenylamine or 4-Phenylaniline)*		p,p'-DDE *(Dichlorodiphenyldichloroethylene)*
	Aniline *(Aminobenzene or Aniline or Phenylamine)*		o,p'-DDT *(Dichlorodiphenyltrichloroethane)*
	Anthracene		p,p'-DDT *(Dichlorodiphenyltrichloroethane)*
	Antimony		Dibenz(a,h)-Anthracene
	Aramite *(2(p-tert-Butylphenoxy)-isopropyl-2-chloroethyl sulfite)*		Dibenz(a,e)-Pyrene
	Arsenic		1,2-Dibromo-3-Chloropropane
X	Barium		1,2-Dibromomethane *(Ethylene Dibromide)*
	Benz(a)-Anthracene		Dibromomethane *(Methylene Bromide)*
	Benzal Chloride *(Benzyl Dichloride)* *(NOT F039)*		Di-n-Butyl Phthalate *(Dibutyl Phthalate)*
	Benzene		m-Dichlorobenzene *(1,3-Dichlorobenzene)*
	Benzo(b)-Fluoranthene		o-Dichlorobenzene *(1,2-Dichlorobenzene)*
	Benzo(k)-Fluoranthene		p-Dichlorobenzene *(1,4-Dichlorobenzene)*
	Benzo(g,h,i)-Perylene		Dichlorodifluoromethane *(CFC-12 or Difluorodichloromethane or Fluorocarbon 12 or Freon 12)*
	Benzo(a)-Pyrene		1,1-Dichloroethane *(Ethylidene Chloride)*
	alpha-BHC *(Hexachlorocyclohexane)*		1,2-Dichloroethane *(Ethylene Dichloride)*
	beta-BHC *(Hexachlorocyclohexane)*		1,1-Dichloroethylene
	delta-BHC *(Hexachlorocyclohexane)*		trans-1,2-Dichloroethylene
	gamma-BHC *(Hexachlorocyclohexane)*		2,4-Dichlorophenol
	Beryllium		2,6-Dichlorophenol
	Bis(2-Chloroethoxy) Methane		2,4-Dichlorophenoxyacetic Acid *(2,4-D)*
	Bis(2-Chloroethyl) Ether		1,2-Dichloropropane *(Propylene Dichloride)*
	Bis(2-Chloroisopropyl) Ether		cis-1,3-Dichloropropylene *(cis-1,3-Dichloropropene)*
	Bis(2-Ethylhexyl) Phthalate		trans-1,3-Dichloropropylene *(trans-1,3-Dichloropropene)*
	Bromodichloromethane		Dieldrin
	Bromomethane *(Methyl Bromide)*		Diethyl Phthalate *(Ethyl Phthalate)*
	4-Bromophenyl Phenyl Ether		p-Dimethylaminoazobenzene *(Xylidene)* *(NOT F039)*
	n-Butyl Alcohol *(1-Butanol or Butyric Alcohol)*		2,4-Dimethylphenol *(Xylenol)*
	Butyl Benzyl Phthalate		Dimethyl Phthalate
	2-sec-Butyl-4,6-Dinitrophenol *(Dinoseb)*		1,4-Dinitrobenzene
	Cadmium		4,6-Dinitro-o-Cresol *(4,6-Dinitro-2-Methylphenol)*
	Carbon Disulfide *(Carbon Bisulfide)*		2,4-Dinitrophenol
	Carbon Tetrachloride *(Tetrachloromethane or Perchloromethane)*		2,4-Dinitrotoluene
	Chlordane *(alpha and gamma isomers)*		2,6-Dinitrotoluene
	p-Chloroaniline *(p-Aminochlorobenzene)*		Di-n-octyl phthalate *(Di(2-Ethylhexyl) Phthalate)*
	Chlorobenzene *(Monochlorobenzene or Phenyl Chloride)*		1,4-Dioxane
	Chlorobenzilate		Diphenylamine
	2-Chloro-1,3-Butadiene *(Chloroprene)*		1,2-Diphenyl Hydrazine
	p-Chloro-m-Cresol *(4-Chloro-3-Methylphenol)*		Diphenylnitrosamine *(N-nitrosodiphenylamine)*
	Chlorodibromomethane		Di-n-propylnitrosoamine
	Chloroethane *(Ethyl Chloride)*		Disulfoton *(Di-Syston)*
	2-Chloroethyl Vinyl Ether *(2-Chloroethoxyethane)* *(NOT F039)*		Endosulfan I
	Chloroform *(Trichloromethane)*		Endosulfan II
	Chloromethane *(Methyl Chloride)*		Endosulfan Sulfate
	2-Chloronaphthalene		Endrin
	2-Chlorophenol *(2-Chloro-1-Hydroxybenzene)*		Endrin Aldehyde
	3-Chloropropylene *(Allyl Chloride)*		2-Ethoxyethanol *(Ethylene Glycol Monoethyl Ether)* *(NOT UNIVERSAL TREATMENT STANDARD)*
X	Chromium *(Total)*		Ethyl Acetate *(Acetic Ester or Acetic Ether or Vinegar Naphtha)*

CHECK	CONSTITUENT	CHECK	CONSTITUENTS
	Ethyl Benzene *(Phenylethane)*		N-Nitrosopiperidine
	Ethylene Oxide *(Epoxyethane or Oxirane)*		N-Nitrosopyrrolidine
	Ethyl Ether *(Diethyl Ether or Diethyl Oxide or Ether or Ethyl Oxide or Sulfuric Ether)*		5-Nitro-o-Toluidine
	Ethyl Methacrylate		Parathion
	Famphur		PCB's *(Total) (All PCB Isomers and Aroclors) (Polychlorinated Biphenyls)*
	Fluoranthene *(Idryl)*		Pentachlorobenzene
	Fluorene *(gamma-Diphenylenemethane)*		Pentachlorodibenzo-p-dioxins *(PeCDD's)*
	Fluoride		Pentachlorodibenzofurans *(PeCDF's)*
	Heptachlor		Pentachloroethane *(Pentalin)* *(NOT F039)*
	Heptachlor Epoxide		Pentachloronitrobenzene
	Hexachlorobenzene *(Perchlorobenzene)*		Pentachlorophenol
	Hexachlorobutadiene		Phenacetin *(Acetophenetidin)*
	Hexachlorocyclopentadiene *(Perchlorocyclopentadiene)*		Phenanthrene
	Hexachlorodibenzo-p-Dioxins *(HxCDD's)*		Phenol
	Hexachlorodibenzofurans *(HxCDF's)*		Phorate
	Hexachloroethane *(Carbon Hexachloride or Carbon Trichloride or Perchloroethane)*		Phthalic Acid *(o-Benzene Dicarboxylic Acid or o-Phthalic Acid)* *(NOT F039)*
	Hexachloropropylene *(Hexachloropropene or Perchloropropylene)*		Phthalic Anhydride
	Indeno(1,2,3-c,d)-Pyrene		Pronamide
	Iodomethane *(Methyl Idodide)*		Propanenitrile *(Ethyl Cyanide)*
	Isobutanol *(Isobutyl Alcohol or Isopropylcarbinol or 2-methyl-1-propanol)*		Pyrene
	Isodrin		Pyridine
	Isosafrole		Safrole *(4-Allyl-1,2-Methylenedioxybenzene)*
	Kepone *(Chlordecone)*		Selenium
X	Lead		Silver
	Mercury		Silvex *(2,4,5-TP) (2,4,5-Trichlorophenoxy-Propionic Acid)*
	Mercury *(Retort Residues)* *(NOT F039)*		Sulfide *(NOT UNIVERSAL TREATMENT STANDARD BUT F039)*
	Methacrylonitrile *(2-Methyl-2-Propenenitrile)*		1,2,4,5-Tetrachlorobenzene
	Methanol *(Methyl Alcohol)*		Tetrachlorodibenzo-p-Dioxins *(TCDD')*
	Methapyrilene		Tetrachlorodibenzofurans *(TCDF's)*
	Methoxychlor *(Methyoxy DDT)*		1,1,1,2-Tetrachloroethane *(Acetylene Tetrachloride)*
	3-Methylcholanthrene		1,1,2,2-Tetrachloroethane *(Acetylene Tetrachloride)*
	4,4-Methylene-bis-(2-Chloroaniline)		Tetrachloroethylene *(Perchloroethylene)*
	Methylene Chloride *(Dichloromethane or Methylene Dichloride)*		2,3,4,6-Tetrachlorophenol
	Methyl Ethyl Ketone *(2-Butanone or Ethyl Methyl Ketone or MEK)*		Thallium
	Methyl Isobutyl Ketone *(Hexone or Isopropylacetone or 4-Methyl-2-Pentanone)*		Toluene *(Methylbenzene or Phenylmethane)*
	Methyl Methacrylate		Toxaphene *(Chlorinated Camphene)*
	Methyl Methansulfonate		Tribromomethane *(Bromoform)*
	Methyl Parathion *(O,O-Dimethyl-O-p-Nitrophenylphosphorothioate)*		1,2,4-Trichlorobenzene
	Naphthalene *(Tar Camphor)*		1,1,1-Trichloroethane *(Methyl Chloroform or TCA)*
	2-Naphthylamine *(beta-Naphthylamine)*		1,1,2-Trichloroethane *(beta-Trichloroethane or Vinyl Trichloride)*
	Nickel		Trichlorethylene *(TCE)*
	o-Nitroaniline *(NOT F039)*		Trichloromonofluoromethane *(CFC-11 or Fluorocarbon 11 or Freon 11 or Trichlorofluoromethane)*
	p-Nitroaniline		2,4,5-Trichlorophenol
	Nitrobenzene *(Oil of Mirbane)*		2,4,6-Trichlorophenol
	o-Nitrophenol *(NOT F039)*		2,4,5-Trichlorophenoxyacetic Acid *(2,4,5-T)*
	p-Nitrophenol		1,2,3-Trichloropropane
	2-Nitropropane *(NOT UNIVERSAL TREATMENT STANDARD)*		1,1,2-Trichloro-1,2,2-Trifluoroethane *(CFC-113 or Fluorocarbon 113 or Freon 113)*
	N-Nitrosodi-n-Butylamine		Tris-(2,3-Dibromopropyl) Phosphate
	N-Nitrosodiethylamine		Vanadium
	N-Nitrosodimethylamine *(Dimethylnitrosamine)*		Vinyl chloride *(Chloroethene or Chloroethylene)*
	N-Nitrosomethylethylamine		Xylene(s) *(Total) (o-Xylene, m-Xylene, and p-Xylene) (Dimethylbenzene)*
	N-Nitrosomorpholine		Zinc *(NOT F039 AND NOT UNDERLYING HAZARDOUS CONSTITUENT IN "D"-WASTES)*

State of California--Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD980842369 Manifest Document No. 24319
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
4. Generator's Phone (650 354-0158 Contact: AL TGY

A. State Manifest Document Number 99824319
B. State Generator's ID
C. State Transporter's ID [Reserved.] 376
D. Transporter's Phone (650)324-1638

5. Transporter 1 Company Name: ROMIC ENVIRONMENTAL TECH.
6. US EPA ID Number: CAD009452657
7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303
10. US EPA ID Number: CAD009452657
G. State Facility's ID: CAD009452657
H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) Prf1# E 305531 ERG# 128	001	DM	00055	G	State 212 / EPA/Other D001
b. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT ST RENGTH 8 UN1790 II Prf1# E 017630 ERG# 157	003	DF	00165	G	State 791 / EPA/Other D002
c. WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II Prf1# E 306315 ERG# 154	001	DF	00055	G	State 122 / EPA/Other D002
d. NON-RCRA HAZARDOUS WASTE, LIQUID (OIL, FREON) Prf1# E 306316 ERG#	002	DF	00110	G	State 223 / EPA/Other NONE

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. 01 d. 4

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 3PM DIAL 408-476-1147
24 HR. EMERGENCY RESPONSE #: (650)324-0165

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: Abhi Cousal | Signature: Abhi Cousal | Month 12 Day 02 Year 99

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ROSS WADE | Signature | Month 12 Day 02 Year 99
18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY
19. Discrepancy Indication Space
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: TERRELL WATERS | Signature | Month 12 Day 03 Year 99

Reference Number: C 000030665

DO NOT WRITE BELOW THIS LINE.

99824319

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESP : CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD009138488 Manifest Document No. 5539 28
2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number **99553928**

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303

4. Generator's Phone ( ) 650 354-0158 Contact: AL TOY

B. State Generator's ID

5. Transporter 1 Company Name: RONIC ENVIRONMENTAL TECH.
6. US EPA ID Number: CAD009452657
C. State Transporter's ID [Reserved.] B-16
D. Transporter's Phone (650)324-1638

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
RONIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303
10. US EPA ID Number: CAD009452657
G. State Facility's ID: CAD009452657
H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) Prfl# ... ERG# 128	001	DM	00055	G.	State 212; EPA/Other D001
b. ~~WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II~~ ~~Prfl# ... ERG# 154~~					State ~~122~~; EPA/Other ~~D002~~
c. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT STRENGTH 8 UN1790 II Prfl# ... ERG# 157	002	DF	00110	G	State 791; EPA/Other D002
d. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8 UN3264 II (HYDROCHLORIC ACID, NITRIC ACID) Prfl# ... ERG# 154	001	DF	00055	G.	State 791; EPA/Other D002

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 3PM DIAL 408-476-1147
24 HR. EMERGENCY RESPONSE #: (650)354-0165

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Abel Carrel	[signature]	10	14	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[handwritten name]	[signature]	10	14	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

99553928

Reference Number: 3 000029525

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD983038356 Manifest Document No. 98886680
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
4. Generator's Phone (650 354-0158 Contact: AL TOY

A. State Manifest Document Number 98886680
B. State Generator's ID
C. State Transporter's ID B-16
D. Transporter's Phone (650)324-1638

5. Transporter 1 Company Name: ROMIC ENVIRONMENTAL TECH.
6. US EPA ID Number: CAD009452657
7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ROMIC ENVIRONMENTAL TECH
2081 BAY ROAD
EAST PALO ALTO, CA 94303
10. US EPA ID Number: CAD009452657
G. State Facility's ID: CAD009452657
H. Facility's Phone (650)324-1638

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUIDS, N.O.S. 3 UN1993 II (ACETONE, METHANOL) Prf# E 039531 ERG# 128	001	DM	00055	G	State 212 / EPA/Other D001
b. WASTE HYDROFLUORIC ACID, SOLUTION, NOT MORE THAN 60 PERCENT ST RENGTH 8 UN1790 II Prf# E 017608 ERG# 157	001	DF	00055	G	State 791 / EPA/Other D002
c. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. 8 UN3264 II (HYDROCHLORIC ACID, NITRIC ACID) Prf# E 018752 ERG# 154	001	DF	00055	G	State 791 / EPA/Other D002
d. WASTE POTASSIUM HYDROXIDE, SOLUTION 8 UN1814 II Prf# E 006315 ERG# 154	001	DF	00055	G	State 122 / EPA/Other D002

J. Additional Descriptions for Materials Listed Above
Line 11a. EPA Codes: F003 F005

K. Handling Codes for Wastes Listed Above
a. 01 b. 01 c. 01 d. 01

15. Special Handling Instructions and Additional Information
FOR EMERGENCIES AFTER 5PM DIAL 408-476-1147 24 HR. EMERGENCY RESPONSE #: (650)354-0165

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Abril Conrad	Abril Conrad	04	22	99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ross Wade	Ross Wade	04	22	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
George Elmore		04	23	99

Reference Number: E 00005555

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (4/97)
EPA 8700—22

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESP E CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

98886680

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.: CAD980882369

Manifest Document No.: 86680

22. Page 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name

CRYSTAL TECHNOLOGY INC
1040 E MEADOW CIRCLE
PALO ALTO, CA 94303
Phone: 650 354-0158 Contact: AL TOY

L. State Manifest Document Number: 98886680

M. State Generator's ID:

24. Transporter ___ Company Name

25. US EPA ID Number

N. State Transporter's ID

O. Transporter's Phone

26. Transporter ___ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

	28. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	NON-RCRA HAZARDOUS WASTE, LIQUID (OIL, FREON) Prfl# E 306316 ERG#		001	DF	00055	G	CA: 223 EPA: NONE
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

GENERATOR

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above: A - 01

32. Special Handling Instructions and Additional Information: 24 HR. EMERGENCY RESPONSE #: (650)354-0165

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

35. Discrepancy Indication Space

Style CF18-6 Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808

EPA Form 8700-22A (Rev. 9-88) Previous editions are obsolete

Reference Number: E 000025695

PRINTED ON RECYCLED PAPER USING SOYBEAN INK

PRINTED WITH SOY INK

ORIGINAL-RETURN TO GENERATOR

HAZARDOUS WASTE
Cradle to Grave Responsibility

Acknowledgement of Training

I, the undersigned, acknowledge that on (date) 5-11-99,
I attended a training session at the following facility:

(company/facility name) CTI

(address) 1040 E. MEADOW CIRCLE

(trainer's name) AL TOY

This training session presented information on hazardous waste management and hazardous waste minimization.

During this session, I viewed the following video program(s), check one or both:

☑ **HAZARDOUS WASTE**
Cradle to Grave Responsibility—UNIT 1: LIFE CYCLE

☑ **HAZARDOUS WASTE**
Cradle to Grave Responsibility—UNIT 2: ACTION AND REACTION

Unit 1 presented general definitions of solid waste and hazardous waste, general handling guidelines, and regulations and recommended practices regarding generation, accumulation and shipment of hazardous wastes.

Unit 2 covered emergency preparedness and response for incidents involving hazardous waste and hazardous waste minimization.

I was given adequate time to ask questions about my particular job activities and how I can best conduct them in compliance with applicable hazardous waste regulations.

(signature) Mary Brown

(department) # 1820, 1830

Hazardous Material Waste Storage Inspection

Month: Jan 98
Inspected by: A. Cunsul

Week Ending: 1/9/98

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/16/98

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/23/98

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/30/98

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

COMMENTS: Jan 98 - Cleaned + organized sheds.

Hazardous Material Waste Storage Inspection

Month: JAN 99
Inspected by: A.C

Week Ending: 1/10/99

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/17/99

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/24/99

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

Week Ending: 1/31/99

	1040	1051 Solv.	1051
1.Sump Integrity intact?	Y N	Y N	Y N
2.Floor clean and free of cracks, deterioration and spills?	Y N	Y N	Y N
3. Wall and fences ,roof s intact?	Y N	Y N	Y N
4. Drums free of leakage and/or deterioration?	Y N	Y N	Y N
5.Drums properly labeled w/ bungs in place?	Y N	Y N	Y N
6. Chemicals properly segregated?	Y N	Y N	Y N
7.Spill and safety equipment available?	Y N	Y N	Y N

COMMENTS: DTSC Inspection 1-13-99

Crystal Technology, Inc.
A Siemens Company

February 23, 1998

DTSC
Attn: Biennial Report Staff
P.O. Box 806
Sacramento, CA 95812-0806

To Whom It May Concern:

Enclosed, please find our 1997 Hazardous Waste Report on a 3.5" disk, along with a hard copy that includes a signed form "IC."

Please feel free to contact me at (650) 354-0165 if you have questions, or if I may be of assistance. Thank you.

Sincerely,

Al Toy,
EH&S Manager

1040 E. Meadow Circle
Palo Alto, California 94303
Direct Line# (650) 354-0165
Direct Fax# (650) 424-8806

Corporate Offices: (650) 856-7916
Corporate Fax: (650) 424-8806
Sales Office: (650) 856-7911
Sales Fax: (650) 858-0944

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U.S. ENVIRONMENTAL PROTECTION AGENCY

1997 Hazardous Waste Report

FORM IC

IDENTIFICATION AND CERTIFICATION

Instructions: Please see the detailed instructions beginning on page 7 of the instructions and forms booklet before completing this form. In addition, the page number for the instructions specific to each section is provided below.

Sec. I Site name and location address. Instructions page 7.

A. EPA ID No.	B. County
CAD980882369	Santa Clara

C. Site/company name	D. Has the site name associated with this EPA ID changed since 1995?
CRYSTAL TECHNOLOGY, INC.	☐ 1 Yes ☒ 2 No

E. Street name and number. If not applicable, enter industrial park, building name or other physical location description.

1040 East Meadow Circle

F. City, town, village	G. State	H. Zip Code
Palo Alto	CA	94303

Sec. II Mailing address of site. Instructions page 7.

A. Is the mailing address the same as the location address?

☒ 1 Yes (SKIP TO SEC III) ☐ 2 No (GO TO BOX B)

B. Number and street name of mailing address

1040 East Meadow Circle

C. City, town, village	D. State	E. Zip Code
Palo Alto	CA	94303

Sec. III Name, title, and telephone number of the person who should be contacted if questions arise regarding this report. Instructions page 7.

A. Last Name	First Name	M.I.	B. Title	C. Telephone Number
Toy, Albert W.			EH&S Manager	650 354-0165 Ext.

Sec. IV "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under Section 3008 of the Resource Conservation and Recovery Act for submitting false information, including the possibility of fine and imprisonment for knowing violations." Instructions page 8.

A. Last Name	First Name	M.I.	B. Title
Toy, Albert W.			EH&S Manager

C. Signature: Albert W Toy

D. Date of signature: 02 (MO.) 23 (DAY) 98 (YR.)

EPA ID NO. CAD980882369

Sec. V Generator status. Instructions begin on page 8.

A. 1997 RCRA generator status (CHECK ONE BOX BELOW)	B. Reason for not generating (CHECK ALL THAT APPLY)	
[X] 1 LQG	[ ] 1 Never generated	[ ] 5 Periodic or occasional generator
[ ] 2 SQG — SKIP TO SEC. VI	[ ] 2 Out of business	[ ] 6 Waste minimization activity
[ ] 3 CESQG — SKIP TO SEC. VI	[ ] 3 Only excluded or delisted waste	[ ] 7 Other (SPECIFY COMMENTS IN BOX BELOW)
[ ] 4 Non-generator (Continue to Box B)	[ ] 4 Only non-hazardous waste	

Sec. VI On-site waste management status. Instructions page 10.

A. Storage subject to RCRA permitting requirements	B. Treatment, disposal, or recycling subject to RCRA permitting requirements
1	1

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Photoresist stripper used to remove photoresist from crystals; mixture of water (85-90%), sodium phosphate (5-10%) and sodium silicate (1-5%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 122

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A03	1	B110	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
165.00	5 Density 1.40 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	165.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Mixed non-halogenated solvents from crystal cleaning operations; mixture of acetone (50-75%), methanol (5-20%), isopropyl alcohol (1-10%), ethanol (0-1%) and N-butyl acetate (0-1%)

B. EPA hazardous waste codes (page 12)	C. State hazardous waste codes (page 13)
D001 D021 F003 F005 NA	CA 212

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A05	2	B203	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,645.00	5 Density 0.80 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	1,645.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM **GM**

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
mixed non-halogenated solvent/wastewater rinse from rinse of solvent containers; water (96-100%), acetone (0-1%), isopropyl alcohol (0-1%), methanol (0-1%) and dye (0-1%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F003	NA	NA	NA	NA	CA 212

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A04	1	B101	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
405.00	5 Density 1.00 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	405.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Waste hydrofluoric acid rinse water from wafer etching; water (80-99%) and hydrofluoric acid (1-20%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
3,145.00	5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	3,145.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM **GM**

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Mixed hydrochloric acid and nitric acid aqueos waste from boule etching; water (80-99%), hydrochloric acid (1-10%) and/or nitric acid (1-10%)

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
495.00	5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	495.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Spent vapor degreaser fluid (HCFC) used for cleaning crystals; Dichlorofluroethane (90-99%), methanol (0-10%), oil (0-1%) and water (0-1%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F001	F003	NA	NA	NA	CA 741

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A07	1	B202	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
110.00	5 Density 1.30 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M021	1	110.00
Site 2	NA			
Site 3	NA			

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

1997 HAZARDOUS WASTE REPORT

FORM **GM**

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Flammable solids used for wipe cleaning of crystals; debris (90-100%), acetone (0-10%), isopropyl alcohol (0-10%) and methanol (0-10%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
F003	NA	NA	NA	NA	CA 352

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A19	1	B409	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,255.00	1 Density NA	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M043	1	1,255.00
Site 2	NA			
Site 3	NA			

Comments:
Cotton wipes and wood handle cotton swabs used for hand wipe cleaning of crystals.

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Hydrofluoric acid wastewater neutralization unit used for etching crystals; water (99-100%) and hydrofluoric acid (0-1%).

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A27	1	B105	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
4.00	5 Density 1.10 ( ) 1 lbs/gal (X) 2 sg	[X] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [ ] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)
M121	4.00	NA	

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[ ] 1 Yes (CONTINUE TO BOX B) [X] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1				
Site 2				
Site 3				

Comments:

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Lab packs of misc. chemicals.

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)	
D001	D002	D018	NA	NA	CA 551	CA 791

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A99	1	B001	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
1,605.00	1 Density NA	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M137	1	1,605.00
Site 2	NA			
Site 3	NA			

Comments:
LAB PACK OF MISC. CHEMICALS. DISPOSAL METHODS VARIED.

SITE NAME: CRYSTAL TECHNOLOGY, INC.

EPA ID NO: CAD980882369

U. S. ENVIRONMENTAL PROTECTION AGENCY

FORM GM

1997 HAZARDOUS WASTE REPORT

WASTE GENERATION AND MANAGEMENT

Instructions: Please see the detailed instructions beginning on page 11 of the instructions and forms booklet before completing this form. In addition, the page number for instructions specific to each box is provided in parentheses.

Sec. I

A. Waste description (page 12)
Potassium hydroxide and water used to clean wafers.

B. EPA hazardous waste codes (page 12)					C. State hazardous waste codes (page 13)
D002	NA	NA	NA	NA	CA 122

D. SIC code (page 13)	E. Origin code (page 13)	F. Source code (page 14)	G. Point of measurement (p. 14)	H. Form code (page 14)	I. RCRA-radioactive mixed (page 14)
3679	1 System type	A03	1	B110	2

Sec. II

A. Quantity generated in 1997 (page 15)	B. UOM (page 15)	C. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (page 15)
825.00	5 Density 1.00 ( ) 1 lbs/gal (X) 2 sg	[ ] 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) [X] 2 No (SKIP TO SEC. III)

ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)	On-site process system type (page 16)	Quantity treated, disposed, or recycled on site in 1997 (page 16)

Sec. III

A. Was any of this waste shipped off site in 1997 for treatment, disposal, or recycling? (page 17)
[X] 1 Yes (CONTINUE TO BOX B) [ ] 2 No (FORM IS COMPLETE)

	B. EPA ID No. of facility waste was shipped to (page 17)	C. System type shipped to (page 17)	D. Off-site availability code (page 17)	E. Total quantity shipped in 1997 (page 17)
Site 1	CAD009452657	M121	1	825.00
Site 2	NA			
Site 3	NA			

Comments: